## SCORE OVER LENGTH SEARCHES

Attached is a score over length search. This search was developed to overcome limitations in most standard search systems which favor large sequences with high scoring, but lesser overall identity over smaller sequences with higher overall identity. This search is especially useful for relatively small nucleic acid or polypeptide target sequences (antisense, fragments, probes, primers, RNAi, epitopes, haptens, etc.) claimed functionally via a form of hybridization and/or identity language and having defined upper and lower polynucleotide and or polypeptide length limits.

The score over length search is performed by first running the query sequence using examiner-specified identity and polynucleotide or protein length limit parameters, and saving 65,000 hits and 0 alignments from each desired database. The resulting output is reformatted using a Microsoft Word macro and is imported into Excel. The summary table data are then sorted by the ratio of score of each hit sequence divided by its length and the accession numbers for all hits below the examiner's desired score over length parameters are deleted. The remaining accession numbers are used to pull the corresponding sequences from the databases into subdatabases enriched for good hits and the query sequence is re-run against these subdatabases to yield the final results.

The score over length cutoff for this search is 80%.

Examiner Please Note: This cover sheet should be included when submitting results to be scanned.

BEST AVAILABLE COPY

.

```
tes/sec
                                                                  26, 2005, 14:59:18; Search time 3132 Seconds (without alignments) 230.914 Million cell upda
 5.1.6
Compugen Ltd.
version - 2005
                                               using sw model
  GenCore
(c) 1993
                                               nucleic search,
             Copyright
                                                                      April
                                                ŧ
                                               OM nucleic
                                                                      Run on:
```

Title:

US-10-619-906-5

Perfect score: 19
Sequence: 1 aattattgattctgtaggt 19
Scoring table: OLIGO NUC
Gapop 60.0 , Gapext 60.0
Searched: 34239544 seqs, 19032134700 residues

Word size: 0

Total number of hits satisfying chosen parameters:
Minimum DB seq length: 0

Maximum DB seq length: 2000000000

68479088

Post-processing: Listing first 45 summaries

Database: EST:\*

1: gb\_est1:\*
2: gb\_est2:\*
3: gb\_htc:\*
4: gb\_est3:\*
5: gb\_est4:\*
6: gb\_est5:\*
7: gb\_est5:\*
9: gb\_gss1:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

								•																	
	ion	V4-BN00	an a	CM1-HT087	-BN0	QV3-BN004	-BN	-818	232	3N0	540	$\overline{}$	-1e	Ξ-1	584	383	150	599	042	1ksp	B12734	V29	4092	CM2-GN005	000
	Descript	2749	8832	5552	9647	6996	BQ312455	4004	5232	2750	10	-	75	I	9	32	8587	σ	1042	4903	2734	9645	4092	CV317979	6055
SUMMAKIES	Ω	2749	3832	5552	9647	6996	245	4004	5232	2750	1640	7701	0375	7811	8609	8832	8587	7599	1042	4903	2734	Ŋ	4092	CV317979	6055
	DB	; 7	7	~	7	~	വ	~	ഹ	~	Н	Ŋ	ო	ω	œ	œ	ω	7	ß	9	~	Ч	~	7	4
	Length	. 0	S	S	œ	び	æ	9	æ	9	↤	3	æ	σ	2	L.	4	0	æ	ហ		σ	Н	375	⊣
de	Query	100.0	100.0	100.0	100.0	•	00	0	00	00	90	0	000	φ.	9.	9	9	89.5	9.	4.	4.	4.	4	84.2	4
	ore	19	19	19	19	19	19	19	19	19	19	19	19	17	17	17	17	17	17	16	16	16	16	16	16
	Result No.	-	8	m			Q U				-	-	Н	-	<b>-</b>	7	-	-	Н	~	20	21	~	c 23	24

1 A1760 6 CA0611 7 CX881 2 AW912 4 B1946 9 CR315 6 CD334 6 CD334 7 CO217 6 CB502 9 AG151 6 CA377 6 CB502 9 CE160 9 CE545	7 CO20438 8 BH97340 7 CO24085
84.2 562 84.2 562 84.2 562 84.2 562 84.2 581 84.2 581 84.2 581 84.2 642 84.2 642 84.2 642 84.2 642 84.2 652 84.2 653	4.4.4. 2.2.4.5. 689689
C 255 C 266 C 277 C 298 C 330 C 332 C 334 C 335 C 34 C 35 C 35 C 36 C 36 C 37 C 37 C 37 C 37 C 37 C 37 C 37 C 37	1 W 4 U

## ALIGNMENTS

d

8

```
7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 source
                                                                                                                                                  DEFINITION
ACCESSION
VERSION
                                                                                                                                                                                                                                                 ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JOURNAL
MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                       REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                             RESULT 3
BF155525
LOCUS
                                                                                                                                                                                                           KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORIGIN
                                                                                                                                                                                                                               SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens (human)
Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Eukaryota; Metazoa; Chordata; Catarrhini; Hominidae; Homo.

B Jiases 1 to 255)
S Dias Neto, E., Garcia Correa, R., Verjovski-Almeida, S., Briones, M.R.,
Nagai, M.A., da Silva, W. Jr., Zago, M.A., Bordin, S., Costa, F.F.,
Goldman, G.H., Carvalho, A.F., Matsukuma, A., Baia, G.S., Simpson, D.H.,
Brunstein, A., deOliveira, P.S., Bucher, P., Jongeneel, C.V.,
Brunstein, A.J.
Simpson, A.J.
Shotgun sequencing of the human transcriptome with ORF expressed
sequence tags
L Proc. Natl. Acad. Sci. U.S.A. 97 (7), 3491-3496 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism="Homo sapiens"
/wol_type="mRNA"
/db_xref="taxon:9606"
/dev_stage="Adult"
/clone_lib="HT0876"
/note="Organ: head_neck; Vector: pucl8; Site_1: Smal;
Site_2: Smal; A mini-library was made by cloning products
derived from ORESTES PCR (U.S. Letters Patent application
No. 196,716 - Ludwig Institute for Cancer Research)
profiles into the pUC 18 vector. Reverse transcription of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -HT0876-060
                       of
                                                                                                                                                                                                                                                                                                                              19-OCT-2000
                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Genome
                                                                                                                                                                                                                                                                                                                                                  seguence
No. 196,716 - Ludwig Institute for Cancer Research) profiles into the pUC 18 vector. Reverse transcription tissue mRNA and cDNA amplification were performed under low stringency conditions."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Paulo-SP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ed under
                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Tel: +55-11-2704922
Fax: +55-11-2707001
Fax: +55-11-2707001
Email: asimpson@ludwig.org.br
This sequence was derived from the FAPESP/LICR Human Cancer Project. This entry can be seen in the following URL (http://www.ludwig.org.br/scripts/gethtml2.pl?tl=&t2=CMl-HT(900-392-h07&t3=2000-09-06&t4=1)
Seq primer: puc 18 forward
High quality sequence stop: 255.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                             EST 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     No. 196,716 - Ludwig Institute for Cancer Rese profiles into the pUC 18 vector. Reverse transtissue mRNA and cDNA amplification were perform low stringency conditions."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sao
                                                                                                                                                       .;
0
                                                                                                                 Length 208;
                                                                                                                                                                                                                                                                                                                         BF088326 CM1-HT0876-060900-392-h07 HT0876 Homo sapiens CDNA, BF088326 BF088326.1 GI:10894036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4 andar, 01509-010,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              25
                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length
                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2;
                                                                                                                  2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%; Score 19; DB;
100.0%; Pred. No. 1.9;
cive 0; Mismatches
                                                                                                                 Score 19; DB;
Pred. No. 1.9;
); Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Contact: Simpson A.J.G.
Laboratory of Cancer Genetics
Ludwig Institute for Cancer Research
Rua Prof. Antonio Prudente 109, 4 and
                                                                                                                                                                                                                  19
                                                                                                                                                       .
0
                                                                                                                  100.0%;
                                                                                                                                                                                             AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity 100
19; Conservative
                                                                                                                                                        Conservative
                                                                                                                                    Similarity
19; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20202663
10737800
                                                                                                                                                                                                                                                                                                                                                                                                        EST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local S
Matches 19
                                                                                                                  Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                  DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM
                                                                                                                                                                                                                                                                                                                                                                    ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
AUTHORS
                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JOURNAL
                                                                                                                                                                                                                                                                                          RESULT 2
BF088326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                        KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                             SOURCE
                                                                               ORIGIN
```

ö

Gaps

ö

Indels

.; 0

.; 0.

```
/mol_type="mRNA"
/db_xref="taxon:9606"
/dev_stage="Adult"
/clone_lib="HT0876"
/note="Organ: head_neck; Vector: puc18; Site_1: Smal;
Site_2: Smal; A mini-library was made by cloning products
derived from ORESTES PCR (U.S. Letters Patent application
No. 196,716 - Ludwig Institute for Cancer Research)
profiles into the pUC 18 vector. Reverse transcription of
tissue mRNA and cDNA amplification were performed under
low stringency conditions."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EST 05-JUN-2000
mRNA sequence.
                                                                                                                                              Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 255)

Dias Neto, E., Garcia Correa, R., Verjovski-Almeida, S., Briones, M.R., Nagai, M.A., da Silva, W. Jr., Zago, M.A., Bordin, S., Costa, F.F., Goldman, G.H., Carvalho, A.F., Matsukuma, A., Baia, G.S., Simpson, D.H., Brunstein, A., deoliveira, P.S., Bucher, P., Jongeneel, C.V., O'Hare, M.J., Soares, F., Brentani, R.R., Reis, L.F., de Souza, S.J. and Simpson, A.J.
Shotgun sequencing of the human transcriptome with ORF expressed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Tel: +55-11-2704922
Fax: +55-11-2707001
Email: asimpson@ludwig.org.br
This sequence was derived from the FAPESP/LICR Human Cancer Genome Project. This entry can be seen in the following URL (http://www.ludwig.org.br/scripts/gethtml2.pl?tl=&t2=CM1-HT0876-2609000-392-h07&t3=2000-09-26&t4=1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                             Euteleostomi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
EST 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sao
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ·.
                                                                                                                                                                                                                                                                                                                                                                                  (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 255;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       385 bp mRNA linear BN0046 Homo sapiens cDNA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01509-010,
 mRNA linear
Homo sapiens CDNA,
                                                                                                                                                                                                                                                                                                                                                                                  3491-3496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           andar,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB ;
                                                                                                                                                                                                                                                                                                                                                                                  97 (7),
                                                                                                                                                                                                                                                                                                                                                                                                                                               Contact: Simpson A.J.G.
Laboratory of Cancer Genetics
Ludwig Institute for Cancer Research
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         'organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 19;
   255 bp
CM1-HT0876-260900-392-h07 HT0876
BF155525
BF155525.1 Gj:11050708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Rua Prof. Antonio Prudente 109,
Brazil
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Seq primer: puc 18 forward
High quality sequence stop: 255
High quality sequence stop: 255
Location/Qualifiers
1. .255
                                                                                                                                                                                                                                                                                                                                                                                   U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AW996471
QV3-BN0046-150300-122-c09
AW996471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 AATTATTGATTCTGTAGGT 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                    Sci.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (human)
                                                                                                                                                                                                                                                                                                                                                                sequence tags
Proc. Natl. Acad.
20202663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                          sapiens
                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                             10737800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 4
AW996471/c
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DEFINITION
ACCESSION
```

3

```
Contact: Simpson A.J.G.
Laboratory of Cancer Genetics
                                                                        U.S.A.
                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 AATTATTGATTCTGTAGGT 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ;
0
                                                                        Sci.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              244 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity 100
19; Conservative
                                                                        Acad.
                                                           tags
                                                       sequence tag
Proc. Natl.
20202663
10737800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20202663
10737800
                                                                                                                                                                                      Brazil
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local
                                                                                                                                                                                                                                                                                                                                                                               Bource
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE
PUBMED
                                                                                      MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 6
BQ312455/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               JOURNAL
                                                                         JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        KEYWORDS
                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMMENT
                                            TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/dev_stage="Adult"
/clone_lib="BN0046"
/note="Organ: breast_normal; Vector: puc18; Site_1: Smal;
Site_2: Smal; A mini-library was made by cloning products
derived from ORESTES PCR (U.S. Letters Patent application
No. 196,716 - Ludwig Institute for Cancer Research)
profiles into the pUC 18 vector. Reverse transcription of
tissue mRNA and cDNA amplification were performed under
low stringency conditions."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   05-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                       Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 385)

Dias Neto, E., Garcia Correa, R., Verjovski-Almeida, S., Briones, M.R.,

Nagai, M.A., da Silva, W. Jr., Zago, M.A., Bordin, S., Costa, F.F.,

Goldman, G.H., Carvalho, A.F., Matsukuma, A., Baia, G.S., Simpson, D.H.,

Brunstein, A., deOliveira, P.S., Bucher, P., Jongeneel, C.V.,

O'Hare, M.J., Soares, F., Brentani, R.R., Reis, L.F., de Souza, S.J. and
Simpson, A.J.

Shotgun sequencing of the human transcriptome with ORF expressed
                                                                                                                                                                                                                                                                                                                                                                                                                                            -BN0046-150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Costa, F.F., Simpson, D.H.,
                                                                                                                                                                                                                                                                                                                                                          ., eleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sedneuce
                                                                                                                                                                                                                                                                                                                                Paulo-SP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eutele«
Rammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 442)
Dias Neto, E., Garcia Correa, R., Verjovski-Almeida, S., Brion Nagai, M.A., da Silva, W. Jr., Zago, M.A., Bordin, S., Costa, F. Goldman, G.H., Carvalho, A.F., Matsukuma, A., Baia, G.S., Simps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                 Sao
                                                                                                                                                                                                                   sequence tags
Proc. Natl. Acad. Sci. U.S.A. 97 (7), 3491-3496 (2000)
20202663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QV3-BN0046-150400-151-h01 BN0046 Homo sapiens cDNA, AW996697.1 GI:8256931
                                                                                                                                                                                                                                                                                                                              01509-010,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                               10737800
Contact: Simpson A.J.G.
Laboratory of Cancer Genetics
Ludwig Institute for Cancer Research
Rua Prof. Antonio Prudente 109, 4 andar,
Brazil
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 19; DB;
Pred. No. 1.9;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           th 100.0%; Similarity 100.0%; 19; Conservative C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens (human)
                            sapiens (human)
AW996471.1
                               Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Bource
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 5
AW996697/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM
                                            ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
AUTHORS
                                                                                        REFERENCE
AUTHORS
                                                                                                                                                                                                                                                  MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    KEYWORDS
              KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURES
                                                                                                                                                                                                     TITLE
                                                                                                                                                                                                                                                                                COMMENT
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORIGIN
                               SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ਠੋ
```

```
Tel: +55-11-2704922
Fax: +55-11-2707001
Email: asimpson@ludwig.org.br
This sequence was derived from the FAPESP/LICR Human Cancer Genome Project. This entry can be seen in the following URL (http://www.ludwig.org.br/scripts/gethtml2.pl?tl=&t2=QV3-BN0046-150400-151-h01&t3=2000-04-15&t4=1)
Seq primer: puc 18 forward
High quality sequence start: 7
High quality sequence stop: 442.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 481)
Dias Neto, E., Garcia Correa, R., Verjovski-Almeida, S., Briones, M.R., Nagai, M.A., da Silva, W. Jr., Zago, M.A., Bordin, S., Costa, F.F., Goldman, G.H., Carvalho, A.F., Matsukuma, A., Baia, G.S., Simpson, D.H., Brunstein, A., deoliveira, P.S., Bucher, P., Jongeneel, C.V.,
O'Hare, M.J., Soares, F., Brentani, R.R., Reis, L.F., de Souza, S.J. and Simpson, A.J.
Shotgun sequencing of the human transcriptome with ORF expressed sequence tags
Proc. Natl. Acad. Sci. U.S.A. 97 (7), 3491-3496 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /note="Organ: breast_normal; Vector: pucl8; Site_1: Smal; Site_2: Smal; A mini-library was made by cloning products derived from ORESTES PCR (U.S. Letters Patent application No. 196,716 - Ludwig Institute for Cancer Research) profiles into the pUC 18 vector. Reverse transcription of tissue mRNA and cDNA amplification were performed under low stringency conditions."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EST 16-MAY-2002 mRNA sequence.
                              and
                                                                                                                                                                                                                                                                                                                                 Sao Paulo-SP
                                                                                          expressed
Brunstein, A., deOliveira, P.S., Bucher, P., Jongeneel, C.V., O'Hare, M.J., Soares, F., Brentani, R.R., Reis, L.F., de Souza, S.J. Simpson, A.J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ·.
                                                                                                                                                   (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BQ312455
MRO-BN0115-041000-014-f08 BN0115 Homo sapiens CDNA,
BQ312455
BQ312455.1 GI:20868627
EST.
                                                                                                                                                                                                                                                                                                                                  01509-010,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                   (7), 3491-3496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                       Contact: Simpson A.J.G.
Laboratory of Cancer Genetics
Ludwig Institute for Cancer Research
Rua Prof. Antonio Prudente 109, 4 andar,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 19; DB 2;
Pred. No. 1.9;
; Mismatches (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1. .442
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/dev_stage="Adult"
/clone_lib="BN0046"
                                                                                                                                                   97
```

an

.rst

-10-619-906-5

```
405 AATTATTGATTCTGTAGGT 387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19
              Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local S
Matches 19
                                                                                                                                                                                                                                           SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 9
BF327500/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LOCUS
DEFINITION
                                                                                                    RESULT 8
BP352329/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM
                                                                                                                                                      DEFINITION
                                                                                                                                                                                       ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JOURNAL
MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                               REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                    JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                  TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                     COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOURCE
                                                   a
a
                   ò
                                                                                                                                                                                                                                                         /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/dev_stage="Adult"
/clone_lib="BN0115"
/note="Organ: breast_normal; Vector: puc18; Site_1: Smal;
Site_2: Smal; A mini-library was made by cloning products
derived from ORESTES PCR (U.S. Letters Patent application
No. 196,716 - Ludwig Institute for Cancer Research)
profiles into the pUC 18 vector. Reverse transcription of
tissue mRNA and cDNA amplification were performed under
low stringency conditions."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

Gonzalez, P., Epstein, D.L. and Borras, T.

Gonzalez, P., Epstein, D.L. and Borras, T.

Characterization of gene expression in human trabecular meshwork using single-pass sequencing of 1060 clones

L Invest. Ophthalmol. Vis. Sci. (2000) In press

Contact: Pedro Gonzalez

Doke University

Duke Eye Center, Erwin Rd, Box 3802, Durham, NC 27710-3802, USA

Tel: 919 681 4085

Fax: 919 684 8983
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     25-JUL-2000
                                                                              Email: asimpson@ludwig.org.br
This sequence was derived from the FAPESP/LICR Human Cancer Genome Project. This entry can be seen in the following URL (http://www.ludwig.org.br/scripts/gethtml2.pl?tl=MR0&t2=MR0-BN0115041000-014-f08&t3=2000-10-04&t4=1)
Seq primer: puc 18 forward
                  Paulo-SP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                   Sao
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 568;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 481;
                  01509-010,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   568 bp mRNA line:
ns cDNA, mRNA sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          / --samism="Homo.sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/tissue_type="Trabecular meshwork"
/clone_lib="HTM1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5,
 Ludwig Institute for Cancer Research
Rua Prof. Antonio Prudente 109, 4 andar,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%; Score 19; DB llarity 100.0%; Pred. No. 1.9; Conservative 0; Mismatches
Cancer Research
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 19; DB
Pred. No. 1.9
; Mismatches
                                                                                                                                                                        Seq primer: puc 10 101111118
High quality sequence stor: 18
High quality sequence stop: 47.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Fax: 919 684 bypy
Email: pedro.gonzalez@duke.edu
                                                                                                                                                                                                                            Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HTM1-818F HTM1 Homo sapiens
BE440047
BE440047.1 GI:9439531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  382 AATTATTGATTCTGTAGGT 364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /organism="Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens (human)
                                                   Tel: +55-11-2704922
Fax: +55-11-2707001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity 100
19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            l Similarity
19; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BE440047
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local (
Matches 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DEFINITION
ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BE440047/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURES
                                                                                                                                                                                                                               FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
```

```
Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Bukaryota; Metazoa; Chordata; Catarrhini; Hominidae; Homo.
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

I (bases 1 to 664)

B 1 (bases 1 to 664)

S Dias Neto, E., Garcia Correa, R., Verjovski-Almeida, S., Briones, M.R., Nagai, M.A., da Silva, W. Jr., Zago, M.A., Bordin, S., Costa, F.F.,
Goldman, G.H., Carvalho, A.F., Matsukuma, A., Baia, G.S., Simpson, D.H.,
Brunstein, A., deOliveira, P.S., Bucher, P., Jongeneel, C.V.,
O'Hare, M.J., Soares, F., Brentani, R.R., Reis, L.F., de Souza, S.J. and Simpson, A.J.
Shotgun sequencing of the human transcriptome with ORF expressed sequence tags
D Proc. Natl. Acad. Sci. U.S.A. 97 (7), 3491-3496 (2000)

E 20202663
D 10737800
                                                                                                                                                                                                                                                                                 Homo sapiens (human)

Homo sapiens

Homo sapiens

Homo sapiens

Homo sapiens

Homata; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.

Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.

Mammalia; Putheria; Primates; Catarrhini; Hominidae; Homo.

Mammalia; Natheria; Primates; Catarrhini; Hominidae; Homo.

B 1 (bases 1 to 583)

Suzuki, Y., Yamashita, R., Shirota, M., Sakakibara, Y., Chiba, J.,

Mizushima-Sugano, J., Nakai, K. and Sugano, S.

Sequence comparison of human and mouse genes reveals a homologous block structure in the promoter regions

Block structure in the promoter regions

Contact: Yutaka Suzuki

Department of Virology

Institute of Medical Science, University of Tokyo

4-6-1, Shirokanedai, Minatoku, Tokyo 108-8639, Japan

Email: ysuzuki@ims.u-tokyo.ac.jp.

Location/Qualifiers
583 bp mRNA linear EST 17-SEP-2004 clone T3R07476, mRNA sequence.
BP352329
BP352329.1 GI:52282315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   22-NOV-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EST 22-NOV-200
mRNA sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /cell_type="squamous cell"
/cell_line="TEl3"
/clone_lib="Sugano cDNA library, squamous cell TEl.
/note="well-differentiated squamous cell carcinoma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 583;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BF327500
QV4-BN0090-220700-307-c09 BN0090 Homo sapiens CDNA,
BF327500
BF327500.1 GI:11298248
EST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .
,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    th 100.0%; Score 19; DB Similarity 100.0%; Pred. No. 1.9; 19; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                clone="T3R07476"
```

Mon

```
Site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%; Score 19; DB 5; Length 930; 100.0%; Pred. No. 1.9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1784 bp mRNA linear full-length cDNA clone CS0DI002YD16 of Placenta Cot of Homo sapiens (human).
CR603756
CR603756.1 GI:50484563
HTC; CNSLT cDNA.
                                                                Length 714;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                sfilA;
                                                                                                  Indels
                 Site 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ;
0
                                                                                                  ö
                                                                  DB 1;
1.9;
                                                                  Score 19; DB
Pred. No. 1.9
; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
/clone_lib="DCB"
/note="Vector: pTriplEx2;
                                                                                                                                                    19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 AATTATTGATTCTGTAGGT 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                0;
                                                                   100.08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                396 AATTATTGATTCTGTAGGT
                                                                                                                                  1 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                         Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                  Similarity 100 19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
Matches. 19; Conserva
                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
                                                                   Query Match
                                                                                 Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 12
CR603756/c
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           source
                                                                                                                                                                                                                  BX377010/c
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DEFINITION
                                                                                                                                                                                                                                                                      DEFINITION
                                                                                                                                                                                                                                                                                                                                                                           ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JOURNAL
                                                                                                                                                                                                                                                                                                         ACCESSION
                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                       VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURES
                                                                                    Best
                                                                                                                                                                                                                                                                                                                                                          SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORIGIN
                                   ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                      ਨੇ
                                                                                                                                                                                                                                                                  /mol_type="mRNA"
/db_xref="taxon:9606"
/dev_stage="Adult"
/clone lib="BN0090"
/note="Organ: breast_normal; Vector: puc18; Site_1: Sma1;
Site_2: Sma1; A mini-library was made by cloning products
derived from ORESTES PCR (U.S. Letters Patent application
No. 196,716 - Ludwig Institute for Cancer Research)
profiles into the pUC 18 vector. Reverse transcription of
tissue mRNA and cDNA amplification were performed under
low stringency conditions."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         11-OCT-2000
                                                                                                                                                                                                                                                                                                                                                                             application
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                 Tel: +55-11-2704922
Fax: +55-11-2707001
Email: asimpson@ludwig.org.br
This sequence was derived from the FAPESP/LICR Human Cancer Genome Project. This entry can be seen in the following URL (http://www.ludwig.org.br/scripts/gethtml2.pl?t1=QV4&t2=QV4-BN0090-220700-307-c09&t3=2000-07-22&t4=1)
Seq primer: puc 18 forward.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              anou, J.,
3., Gao, X.,
2hong, M.,
                                                    Paulo-SP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            eleostomi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleosto

Bukaryota; Metazoa; Chordata; Catarrhini; Hominidae; Homo.

Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 714)

Xu,X., Gu,J., Liu,F., Qu,J., Zhao,M., Li,Y., Huang,Q., Zhou,J.,

Song,H., Gu,Y., Yang,Y., Gao,G., Xiao,H., Li,N., Qian,B., Gao,Cheng,Z., Xu,S., Gu,W., Tu,Y., Jia,J., Fu,G., Ren,S., Zhong,M.

Lu,G., Cheng,Z. and Han,Z.

Homo sapiens cDNA DCB clones

Unpublished (2000)

Contact: Zeguang Han

Chinese National Human Genome Center at Shanghai

351 Guo Shoujing Road, Zhangjiang Hi-Tech Park, Pudong, Shangh

Z01203, P. R. China

Tel: 86-21-50801919(ex.45)

Fax: 86-21-50801922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Zhou, J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EST
mRNA 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;
0
                                                    Sao
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%; Score 19; DB 2; Length 664; 100.0%; Pred. No. 1.9; ive 0; Mismatches 0; Indels
                                                 01509-010,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        clone DCBAQG015',
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Shanghai
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;
0
                                                 4 andar,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cells"
Contact: Simpson A.J.G.
Laboratory of Cancer Genetics
Ludwig Institute for Cancer Research
Rua Prof. Antonio Prudente 109, 4 and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      sapiens"
                                                                                                                                                                                                                                                        /organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Email: hanzg@chgc.sh.cn
This clone is available at CHGC
Location/Qualifiers
1. .714
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AV716402
AV716402 DCB Homo sapiens cDNA c
AV716402
AV716402.1 GI:10797919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /cell_type="dendritic
/dev_stage="mature"
/lab_host="BM25.8"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /organism="Homo sapie
/mol_type="mRNA"
/db xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         clone="DCBAQG01"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 AATTATTGATTCTGTAGGT 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       423 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity
Matches 19; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 10
AV716402/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KEYWORDS
                                                                                                                                                                                                                        FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LOCUS
```

В

ठे

```
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Bukaryota; Metazoa; Chordata; Catarrhini; Hominidae; Homo.

I (bases 1 to 930)

S Li, W.B., Gruber, C., Jessee, J. and Polayes, D.

Full-length cDNA libraries and normalization

L Unpublished (2001)

On May 8, 2003 this sequence version replaced gi:30442870.

Contact: Genoscope

Genoscope - Centre National de Sequencage

Genoscope - Centre National de Sequencage

2 rue Gaston Cremieux, CP 5706 - 91057 EVRY cedex - FRANCE

Email: segref@genoscope.cns.fr, Web: www.genoscope.cns.fr

1st strand cDNA was primed with a NotI-oligo(dT) primer. Five prime
end enriched, double-strand cDNA was digested with Not I and cloned
into the Not I and EcoR V sites of the pCMVSPORT 6 vector. Library
was normalized. Library was constructed by Life Technologies, a
division of Invitrogen. This sequence belongs to sequence cluster
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1. .930
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="CSODI001YG13"
/tissue_type="PLACENTA COT 25-NORMALIZED"
/clone_lib="Homo sapiens PLACENTA COT 25-NORMALIZED"
/note="1st strand cDNA was primed with a NotI-oligo(dT)
primer. Five prime end enriched, double-strand cDNA was
digested with Not I and cloned into the Not I and EcoR V
sites of the pCMVSPORT 6 vector. Library was normalized."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BX377010

BX377010 Homo sapiens PLACENTA COT 25-NORMALIZED Homo sapiens CDNA clone CS0DI001YG13 5-PRIME, mRNA sequence.

BX377010

BX377010.2 GI:46570565

EST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HTC 21-JUL-2004
25-normalized
                                                                                                                                                                 ö
sfilB
                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5783.r
For more information about this cluster, see
http://www.genoscope.cns.fr/cdna?s=CS0DI001AD07QP1&c=5783.r
Location/Qualifiers
..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                      ö
```

0

.rst

-10-619-906-5

```
/organism="Leishmania major"
/mol_type="genomic DNA"
/strain="Friedlin"
/db_xref="taxon:5664"
/clone="LB00584a"
/clone="LB00584a"
/lab_host="E. coli GeneHogs + TrfA"
/clone_lib="Leishmania major Friedlin BAC Library"
/note="Vector: pCG270; Site_l: HindIII; Genomic DNA from Leishmania major Friedlin in agarose blocks was partially digested with HindIII, size selected, and ligated with HindIII, size selected, and ligated with HindIII are selected.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BH886093
LB00584a.d_SP6.1 Leishmania major Friedlin BAC Library Leishmania major genomic clone LB00584a, genomic survey sequence.
BH886093
                                                                                                                                                                   /cell_type="sperm"
/clone_lib="CITBI-E1"
/note="Vector: pBeloBAC11; Site_1: EcoRI; Site_2: EcoRI;
CalTech Human BAC Library D"
                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sisk, E.,
                                                                                                                                                                                                                                                                                                                                                              .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           major
Euglenozoa; Kinetoplastida; Trypanosomatidae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Leisnmania.

1 (bases 1 to 528)

Myler, P.J., Vogt, C., Munden, H., Robertson, L., Sisk, I Fazelinia, G., Aggarwal, G., Nelson, S., Seyler, A., Wolstuart, K. and Ragland, M.
Leishmania major Friedlin BAC End Sequences Unpublished (2002)
Other GSSs: LB00584a.d T7.1
Contact: Myler PJ
Seattle Biomedical Research Institute
4 Nickerson Street, Seatttle, WA 98109-1651, USA
                                                                                                                                                                                                                                                                                                                Length 495;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 528;
                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 8;
                                                                                                                                                                                                                                                                                                              Score 17; DB 8;
Pred. No. 26;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 17; DB Pred. No. 26; 0; Mismatches
                                           /organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
/clone="2523H15"
/sex="male"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
1. .528
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; o ;
                                                                                                                                                                                                                                                                                                                 th 89.5%; Sc
Similarity 100.0%; F
17; Conservative 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Email: mylerpj@sbri.org
Seq primer: SP6
Class: BAC ends.
                                                                                                                                                                                                                                                                                                                                                                                                                                        230 TTATTGATTCTGTAGGT 214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GI:22130488
                                                                                                                                                                                                                                                                                                                                                                                                              19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        89.5%;
illarity 100.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4 Nickerson Street,
Tel: 206 284-8846
Fax: 206 284-0313
                                                                                                                                                                                                                                                                                                                                                                                                                TTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Leishmania major
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Leishmania m
Eukaryota; E
Leishmania.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BH886093.1
GSS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
17; Conser
                                                                                                                                                                                                                                                                                                                 Query Match
Best Local S
Matches 17
                                                                                                                                                                                                                                                                                                                                                                                                                 ന
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         source
                            source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 14
BH886093/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VERSION
KEYWORDS
SOURCE
    FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORIGIN
                                                                                                                                                                                                                                                                       ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Db
                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                Five prime and cloned
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   22-NOV-1998
2523H15,
                                                                                                                                                                                                                                                                                                         submitted (20-JUL-2004) Genoscope - Centre National de Sequencage BP 191 91006 EVRY cedex - FRANCE (E-mail : seqref@genoscope.cns.fr - Web : www.genoscope.cns.fr)

1st strand cDNA was primed with a NotI-oligo(dT) primer. Five priment end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and EcoR V sites of the pCMVSPORT 6 vector. Library was normalized. Library was constructed by Life Technologies, a division of Invitrogen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .com). BAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence-Ready
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ,K., Golden,K.
Simon,M. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             search.html
                                                 Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                       1600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eutelec
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 495)
Adams, M.D., Rounsley, S.D., Zhao, S., Bass, S., Linher, K., Go.
Berry, K., Granger, D., Suh, E., Wible, C., Shizuya, H., Simon, I
                                               Craniata; Vertebrata; Eutele Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Email: mdadams@tigr.org

Email: mdadams@tigr.org

Clones are available from Research Genetics (info@resgen

end search page:

http://www.tigr.org/tdb/humgen/bac_end_search/bac_end_search

Seq primer: M13 Reverse

Class: BAC ends.
                                                                                                                                                                                         Contact : Feng Liang Email : fliang@lifetech.com URL : http://fulllength.invitrogen.com/ InVitroGen Corporation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AQ278111
CITBI-E1-2523H15.TR CITBI-E1 Homo sapiens genomic clone
genomic survey sequence.
AQ278111
AQ278111.1 GI:3904154
GSS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 1784;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Berry, K., Granger, D., Suh, E., Wible, C., Shizuya, H., Venter, J.C.
Use of a random human BAC End Sequence Database for Map Building
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Cot 25-normalized"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20850, USA
Homo sapiens (human)
Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Verte
Mammalia; Eutheria; Primates; Catarrhini; Hom
1 (bases 1 to 1784)
Li,W.B., Gruber,C., Jessee,J. and Polayes,D.
Full-length cDNA libraries and normalization
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ,
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Unpublished (1998)
Other_GSSs: CITBI-E1-2523H15.TF
Contact: Mark Adams
Department of Eukaryotic Genomics
The Institute for Genomic Research
9712 Medical Center Dr., Rockville, MD 20
Tel: 301 838 0200
Fax: 301 838 0208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ж
,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 19; DB;
Pred. No. 1.9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="CS0DI002YD16"
/tissue_type="Placenta Cot/plasmid="pCMVSPORT_6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            376
                                                                                                                                                                                                                                                              2 (bases 1 to 1784)
Genoscope.
Direct Submission
Submitted (20-JUL-2004) G
BP 191 91006 EVRY cedex -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       394 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                           Faraday Avenue
                                                                                                                                                                   Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
19; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Matc}
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 13
AQ278111/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM
                       ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DEFINITION
                                                                                                                                                                                                                                                                 REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
AUTHORS
                                                                                           REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          JOURNAL
                                                                                                                                                                   JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                          JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                 COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORIGIN
 SOURCE
```

d

ò

-AUG-2002

ö

.; 0

-

260

요

RESULT 15 BH888327/c

DEFINITION

LOCUS

ACCESSION

VERSION KEYWORDS SOURCE

ORGANISM

REFERENCE AUTHORS

TITLE JOURNAL COMMENT

FEATURES

```
1. .645
/organism="Leishmania major"
/mol_type="genomic DNA"
/strain="Friedlin"
/db_xref="taxon:5664"
/clone="LB00450a"
/lab_host="E. coli GeneHogs + TrfA"
/clone_lib="Leishmania major Friedlin BAC Library"
/note="vector: pCG270; Site_l: HindIII; Genomic DNA from Leishmania major Friedlin in agarose blocks was partially digested with HindIII, size selected, and ligated with HindIII-digested pCG270 vector DNA. 10368 clones were picked and arrayed in 384- and 96-will plates. Library construction and arraying was carried out by ResGen Corporation and clones and filters are available from them"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Xenopus tropicalis (western clawed frog)

Xenopus tropicalis

Rukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;

Xenopodinae; Xenopus; Silurana.

E 1 (bases 1 to 808)

S Groning, M.D.R., Ashurst, J.L., Taylor, R., Garrett, N. and Rogers, J.

Coning, M.D.R., Ashurst, J.L., Taylor, R., Garrett, N. and Rogers, J.

Lupublished (2004)

Lonbublished (2004)

Lontact: Croning MDR

Sanger Institute

Hinxton, Cambridgeshire, CB10 1SA, UK

Email: trop@sanger.ac.uk

Sanger Xenopus tropicalis EST project 2001

TROPICALIS_SEQUENCE_ID: THGA040j06.plkaSP6

TROPICALIS_SEQUENCE_ID: THGA040j06.plkaSP6

This sequence is from a Xenopus Gene Collection (XGC) library

constructed by Nigel Garrett.

Seq primer: SP6.
         Worthey, E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EST
clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 645;
Fazelinia, G., Aggarwal, G., Nelson, S., Seyler, A., Stuart, K. and Ragland, M.
Leishmania major Friedlin BAC End Sequences
Unpublished (2002)
Other GSSs: LB00450a.d_SP6.1
Contact: Myler PJ
Seattle Biomedical Research Institute
4 Nickerson Street, Seattle, WA 98109-1651, USA
Tel: 206 284-0313
Email: mylerpj@sbri.org
Seq primer: T7
Class: BAC ends.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CR575999 B08 bp mRNA linear CR575999 XGC-tailbud-head Xenopus tropicalis cDNA 5', mRNA sequence. CR575999 CR575999 CR575999.1 GI:50463425 EST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /organism="Xenopus tropicalis"
/mol_type="mRNA"
/db_xref="taxon:8364"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 17; DB 8
Pred. No. 26;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /clone="THdA040j06"
                                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            89.5%; Sc.
100.0%; Pi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTATTGATTCTGTAGGT 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity 100-17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               m
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 17
CR575999/c
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE
AUTHORS
TITLE
JOURNAL
                                                  TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURES
                                                                                                                                                                                                                                                                               FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LB00450a.d_T7.1 Leishmania major Friedlin BAC Library Leishmania major genomic clone LB00450a, genomic survey sequence.
BH885870
BH885870.1 GI:22130265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                   07-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /lab_host="E. coli GeneHogs + TrfA"
/clone_lib="Leishmania major Friedlin BAC Library"
/note="Vector: pCG270; Site_1: HindIII; Genomic DNA from
Leishmania major Friedlin in agarose blocks was partially
digested with HindIII, size selected, and ligated with
HindIII-digested pCG270 vector DNA. 10368 clones were
picked and arrayed in 384- and 96-will plates. Library
construction and arraying was carried out by ResGen
Corporation and clones and filters are available from
them"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                    /, Ε.,
                                                                                                                                                                                                                                                                                                                                         | (bases 1 to 631)

Myler, P.J., Vogt, C., Munden, H., Robertson, L., Sisk, E.,

Fazelinia, G., Aggarwal, G., Nelson, S., Seyler, A., Worthey

Stuart, K. and Ragland, M.

Leishmania major Friedlin BAC End Sequences

Unpublished (2002)

Other GSSs: LB01983a.d_SP6.1

Contact: Myler PJ
                                                                                                                                                                                                                                                                                                   Trypanosomatidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Trypanosomatidae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sisk, E.,
                                                                                              BH888327
LB01983a.d_T7.1 Leishmania major Friedlin BAC Library
major genomic clone LB01983a, genomic survey sequence.
BH888327
BH888327.1 GI:22134207
GSS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    to 645)
Vogt, C., Munden, H., Robertson, L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Institute
9, WA 98109-1651,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    score 17; DB 8;
Pred. No. 26;
; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Euglenozoa; Kinetoplastida;
Leishmania.
1 (bases 1 to 645)
Myler, P.J., Vogt, C., Munden, H., Roberts
                                                                                                                                                                                                                                                                                Leishmania major
Eukaryota; Euglenozoa; Kinetoplastida;
Leishmania.
1 (bases 1 to 631)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /organism="Leishmania major"
/mol_type="genomic DNA"
/strain="Friedlin"
/db_xref="taxon:5664"
/clone="LB01983a"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Seattle Biomedical Research Insti
4 Nickerson Street, Seattle, WA
Tel: 206 284-8846
Fax: 206 284-0313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers
1. .631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Email: mylerpj@sbri.org
Seg primer: T7
Class: BAC ends.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           89.5%;
100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  major
major
                                                                                                                                                                                                                                                            Leishmania major
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Leishmania
Leishmania
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
Matches 17; Conser
```

256

8

RESULT 16 BH885870/c LOCUS

DEFINITION

ACCESSION

VERSION

KEYWORDS

SOURCE

ORGANISM

REFERENCE AUTHORS

ന

ORIGIN

ö

Gaps

ö

21-JUL-2004 THdA040j06

.rst

S

```
BB127347
BB127347 RIKEN full-length enriched, musculus cDNA clone 9630021A03 3', mRBB127347
BB127347.1 GI:8781701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB (
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Peter Hunt, Linda McKinnel, BF Koop. bioinformatics: Gordon D Brown.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                 251 bp
Imo salar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 16;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /organism="Salmo salar"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
1. .251
                                  CA049038
ssalkspa003036 kidney Salmo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         84.2%; SC.
100.0%; P.
                                                                                GI:24355208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TATTGATTCTGTAGGT 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      113 TATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
16; Conser
                                                                                CA049038.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local S
Matches 16
                                LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM
                                                                                                                                 ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 20
BB127347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
AUTHORS
                                                                                                                                                                                              REFERENCE
AUTHORS
                                                               ACCESSION
                                                                                                                                                                                                                                                                              JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KEYWORDS
SOURCE
                                                                               VERSION
KEYWORDS
                    CA049038
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                               TITLE
                                                                                                                                                                                                                                                                                            COMMENT
  RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORIGIN
                                                                                                                SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Б
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                          BX710423 XGC-tadpole Xenopus tropicalis cDNA clone TTpA003j14 5',
                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    dev stage="tadpole (stage 35-40)"

/lab_host="E. coli DH10B"

/clone_lib="XGC-tadpole"

/note="Vector: pCS107; Site_1: EcoRI; Site_2: NotI; cDNA

vas oligo dT primed from 5ug of poly A+ RNA from tadpole
smbryos. EcoRI-NotI cut cDNA was then ligated into pCS107

vith EcoRI at the 5' end and NotI at the 3' end"
/dev_stage="tailbud head (stage 28-30)"
/lab_host="Escherichia coli DH10B."
/clone_lib="XGC-tailbud-head"
/note="Vector: pCS107; Site_1: EcoRI; Site_2: NotI; cDNA
was oligo dT primed from Sug of poly A+ RNA from tailbud
head. EcoRI-NotI cut cDNA was then ligated into pCS107
with EcoRI at the 5' end and NotI at the 3' end."
                                                                                                                                                                                                                                                                                                                                                                                                                         Xenopus tropicalis (western clawed frog)
Xenopus tropicalis
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
Xenopodinae; Xenopus; Silurana.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sanger Institute
Hinxton, Cambridgeshire, CB10 1SA, UK
Email: trop@sanger.ac.uk
Sanger Xenopus tropicalis EST project 2001
TROPICALIS_SEQUENCE ID: TTPA003j14.plkSP6
Sequencing primer: $P6
This sequence is from a Xenopus Gene Collection (XGC) library
constructed by Nigel Garrett.
cDNA was oligo dT primed from 5ug of poly A+ RNA from tadpole
embryos. EcoRI-NotI cut cDNA was then ligated into pCS107 with
EcoRI at the 5' end and NotI at the 3' end.
Vector: pCS107; Site 1: EcoRI; Site 2: NotI
Host: Escherichia coli DH10B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 (bases 1 to 885)
Croning,M.D.R., Ashurst,J.L., Taylor,R., Zorn,A.M. and Rogers,J
Sanger Xenopus tropicalis EST project 2001 (11_2003)
Unpublished (2003)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 885;
                                                                                                                                                  7; Length 808;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1. 885
/organism="Xenopus tropicalis'
/mol_type="mRNA"
/db_xref="taxon:8364"
/clone="TTpA003j14"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .
,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 17; DB:
Pred. No. 26;
0; Mismatches
                                                                                                                                                Score 17; DB 7
Pred. No. 26;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  724
                                                                                                                                                                                 ;
0
                                                                                                                                                                                                                                                                                                                                                                                            GI:38382526
                                                                                                                                                                                                                                                  581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       embryos. EcoR:
with EcoRI at
                                                                                                                                                                                                                  18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    89.5%;
100.0%;
                                                                                                                                              th 89.5%; Similarity 100.0%; 17; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Croning MDR
                                                                                                                                                                                                                              597 ATTATTGATTCTGTAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATTATTGATTCTGTAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     740 ATTATTGATTCTGTAGG
                                                                                                                                                                                                                  ATTATTGATTCTGTAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    was oligo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                               mRNA sequence.
BX710423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /lab_
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
Matches 17; Conser
                                                                                                                                                                                                                                                                                                                                                                                             BX710423.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Contact:
                                                                                                                                                                                                                                                                                                                                                                                                              EST
                                                                                                                                       Query Mar
                                                                                                                                                   Match
                                                                                                                                                                                                                                                                                                             BX710423/c
                                                                                                                                                                                                                                                                                                                                               DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                              ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JOURNAL
                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                              KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                             VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORIGIN
                                                                                                                                                                                                                                                                                                 RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                             SOURCE
                                                                                                                                                                                                                                                                                                                                LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                  <del>a</del>
```

```
days neonate cerebellum Mus
sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. 1 (bases 1 to 273)

Konno, H., Aizawa, K., Akahira, S., Akiyama, J., Arakawa, T.,
Carninci, P., Endo, T., Fukuda, S., Fukunishi, Y., Hara, A., Hayatsu, N.,
Hirozane, T., Hori, F., Ishii, Y., Ishikawa, J., Ishikawa, T., Itoh, M.,
Izawa, M., Kadota, K., Kagawa, I., Kai, C., Kawai, J., Kikuchi, N.,
Kiyosawa, H., Kojima, Y., Kondo, S., Koya, S., Kurihara, C.,
Kiyasawa, H., Matsuyama, T., Miki, R., Mizuno, Y., Nakamura, M., Oda, H.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /wol_type="mRNA"
/mol_type="mRNA"
/strain="McConnell"
/db_xref="taxon:8030"
/clone_lib="kidney"
/note="Vector: pBlueScriptIISK+; Library Creator: Matthew
L Rise ; Atlantic salmon tissue contributors: Carlo Biagi,
Mitch Uh and Robert Devlin (DFO, Vancouver, B.C.), Simon
Jones (PBS, Nanaimo, B.C.), Seaspring Hatchery (Crofton,
B.C.), Rachel Roper (University of Victoria)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ;
0
linear EST 04-MAR-2003 mRNA sequence.
                                                                                                                                                                                                   Chordata; Craniata; Vertebrata; Euteleostomi; pterygii; Teleostei; Euteleostei;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                          complexity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Victoria
                                                                                                                                                                                                                                                            Salmo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Email: bkoop@uvic.ca
Centre for Biomedical Research, University of Victori
CDNA preparation and sequencing:
Roberto Alberto, Marianne Beetz-Sargent, Maura Busby,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 251;
                                                                                                                                       Salmo salar (Atlantic salmon)

Salmo salar

Bukaryota; Metazoa; Chordata; Craniata; Vertebrata

Actinopterygii; Neopterygii; Teleostei; Buteleostei

Protacanthopterygii; Salmoniformes; Salmonidae; Sal

(Bases 1 to 251)

GRASP Consortium, Davidson, W.S., Koop, B.F. and

http://web.uvic.ca/cbr/grasp.

A survey of Salmo salar transcripts from high complibraries

Unpublished (2002)

Contact: Koop BF

Centre for Biomedical Research
University of Victoria

PO Box 3020 STN CSC, Victoria BC, V8W 3N5, Canada

Tel: 250 472 4067

Fax: 250 472 4067
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Canada
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       p mRNA
iched, 16
3', mRNA
      mRNA
CDNA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
```

DEFINITION

LOCUS

ACCESSION

VERSION

KEYWORDS

ORGANISM

REFERENCE AUTHORS

JOURNAL

COMMENT

TITLE

```
Okazaki,Y., Ono,T., Owa,C., Saito,H., Sakai,C., Sato,K., Shibata,K., Shibata,Y., Shigemoto,Y., Shinagawa,A., Shiraki,T., Sogabe,Y., Sugahara,Y., Suzuki,H., Suzuki,H., Tagawa,A., Takahashi,F., Tominaga,N., Toya,T., Tsunoda,Y., Watahiki,A., Yokota,T., Yoshida,K., Yoshiki,A., Yoshino,M., Muramatsu,M. and Hayashizaki,Y.

RIKEN Mouse ESTE (Konno,H., et al.)
Unpublished (2000)
Contact: Yoshihide Hayashizaki
Laboratory for Genome Exploration Research Group, RIKEN Genomic Sciences Center (GSC), Yokohama Institute
The Institute of Physical and Chemical Research (RIKEN)
1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan Tel: 81-45-503-9226
Fax: 81-45-503-9226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Email: genome-res@gec.riken.jp, URL:http://genome.gec.riken.jp/
Carninci,P., Nishiyama,Y., Westover,A., Itoh,M., Nagaoka,S.,
Sasaki,N., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y.
Thermostabilization and thermoactivation of thermolabile enzymes by trehalose and its application for the synthesis of full length cDNA. Proc. Natl. Acad. Sci. U.S.A. 95 (2), 520-524 (1998)
Itoh,M., Kitsunai,T., Akiyama,J., Shibata,K., Izawa,M., Kawai,J.,
Tomaru,Y., Carninci,P., Shibata,Y., Ozawa,Y., Muramatsu,M.,
Okazaki,Y. and Hayashizaki,Y.
Automated filtration-based high-throughput plasmid preparation system. Genome Res. 9 (5), 463-470 (1999)
Carninci,P. and Hayashizaki,Y.
High-efficiency full-length cDNA cloning. Methods Enzymol. 303, 19-44 (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              enzymes by
length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            nd cDNA was
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CDNA was
                                                                                                                                                                                                                                                                                                                                                                                                 Japan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note="Site 1: Sall; Site 2: BamHI; cDNA library was prepared and sequenced in Mouse Genome Encyclopedia Project of Genome Exploration Research Group in Riken Genomic Sciences Center and Genome Science Laboratory in RIKEN. Division of Experimental Animal Research in Riken contributed to prepare mouse tissues. 1st strand cDNA was primed with a primer [5'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Kawai,J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        neonate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      reverse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (di
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /tissue_type="cerebellum"
/dev_stage="16 days neonate"
/lab_host="DH108"
/clone_lib="RIKEN_full-length enriched, 16 days
cerebellum"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Please visit our web site (http://genome.rtc.riken.go.] urther details.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               prepared by using trehalose thermo-activated transcriptase and subsequently enriched for f
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /organism="Mus musculus"
/mol_type="mRNA"
/db_xref="taxon:10090"
/clone="9630021A03"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
                                                                                                                                                                                                                        TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURES
                                                                                                                                                                                                                                                                                  COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORIGIN
```

Query Match Best Local Similarity 100.0%; Pred. No. 95; Matches 16; Conservative 0; Mismatches 0; Indels 0; Gaps

<del>Q</del>

ઠે

RESULT 21 AV296455

/dev\_stage="8 days embryo"
/dev\_stage="8 days embryo"
/lab\_host="DH10B"
/clone lib="RIKEN full-length enriched, 8 days embryo"
/note="Site 1: Sal1; Site 2: BamH1; cDNA library was
prepared and sequenced in Mouse Genome Encyclopedia
Project of Genome Exploration Research Group in Riken
Genomic Sciences Center and Genome Science Laboratory in
RIKEN. Division of Experimental Animal Research in Riken
contributed to prepare mouse tissues. 1st strand cDNA was
primed with a primer [5'
GAGAGAGAGAGGCTCTTTTTTTTTTTTTTTVN 3'], cDNA was
prepared by using trehalose thermo-activated reverse
transcriptase and subsequently enriched for full-length by
cap-trapper. cDNA went through one round of subtraction to
Rot = 100.0 Second strand cDNA was prepared with the Email: genome-res@gsc.riken.jp, URL:http://genome.gsc.riken.jp/
Sasaki,N., Izawa,M., Watahiki,M., Ozawa,K., Tanaka,T., Yoneda,Y.,
Matsuura,S., Carninci,P., Muramatsu,M., Okazaki,Y. and
Hayashizaki,Y.
Transcriptional sequencing: A method for DNA sequencing using RNA
polymerase. Proc. Natl. Acad. Sci. U.S.A. 95 (7), 3455-3460 (1998)
Itoh,M., Kitsunai,T., Akiyama,J., Shibata,K., Izawa,M., Kawai,J.,
Tomaru,Y., Carninci,P., Shibata,Y., Ozawa,Y., Muramatsu,M.,
Okazaki,Y. and Hayashizaki,Y.
Automated filtration-based high-throughput plasmid preparation
system. Genome Res. 9 (5), 463-470 (1999)
Carninci,P. and Hayashizaki,Y.
High-efficiency full-length cDNA cloning. Methods Enzymol. 303, Eleukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Musmalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. B. 1 (bases 1 to 298)

Konno, H., Aizawa, K., Akahira, A., Hayatsu, N., Hirozane, T., Hori, F., Fukuda, S., Fukunishi, Y., Hayatsu, N., Hirozane, T., Hori, F., Ishikawa, T., Itoh, M., Kojima, Y., Koya, S., Kusakabe, M., Matsuyama, T., Miki, R., Mizuno, Y., Nakamura, M., Oda, H., Okazaki, Y., Shibata, Y., Saito, H., Sano, M., Sato, K., Shibata, K., Shibata, Y., Shipama, T., Yagunakhi, F., Tateno, M., Tominaga, N., Tsunoda, Y., Watahiki, A., Watanabe, S., Yamamura, T., Yagunishi, A., Yokota, T., Yoshiki, A., Watanabe, S., Yamamura, T., Yagunishi, A., Yokota, T., Yoshiki, A., Watanabe, S., Yamamura, T., Yagunishi, A., Watanabe, S., Yamamura, T., Yagunishi, Y., RIKEN Mouse ESTS (Konno, H., et al. 1999)

Luboratory for Genome Exploration Research Group, RIKEN Genomic Sciences Center (GSC), Yokohama Institute of Physical and Chemical Research (RIKEN)

1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan Tel: 81-45-503-9226

Fax: 81-45-503-9226 was cloned into the XhoI and BamHI sites. Vector: a modified pBluescript KS(+) after bulk excision from Lambda EST 10-NOV-1999 Japan CDNA days embryo Mus musculus site (http://genome.rtc.riken.go.jp) linear mRNA sequence. mRNA AV296455
AV296455 RIKEN full-length enriched, 8
CDNA clone 5730441N12 3', mRNA sequence /organism="Mus musculus"
/mol\_type="mRNA"
/strain="C57BL/6J" db\_xref="taxon:10090" clone="5730441N12" 'sex="mixed" Location/Qualifiers 1. .298 mouse) GI:6328474 Please visit our web further details. (house musculus Mus musculus EST

FEATURES

В

ò

us-10-619-906

```
sequence tags
Proc. Natl. A
                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20202663
10737800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Shotgun
                                                                                                                                                                                                                                                                                                                                                          16;
                                                                                                                                                                                                                                                                                                                               Match
                                                                                                                                                                                                                                                                                                                                Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CV317979/c
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               JOURNAL
MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT
                                                                                                                                                                                                                                                                                                   ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Hayashizaki, Y.

RIKEN Mouse ESTS (Konno, H., et al.)

Unpublished (2000)

Contact: Yoshihide Hayashizaki

Laboratory for Genome Exploration Research Group, RIKEN Genomic
Sciences Center(GSC), Yokohama Institute
The Institute of Physical and Chemical Research (RIKEN)

1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan
Tel: 81-45-503-9216

Email: genome-res@gsc.riken.jp, URL:http://genome.gsc.riken.jp/
Carninci,P., Nishiyama,Y., Westover,A., Itoh,M., Nagaoka,S.,
Sasaki,N., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y.
Thermostabilization and thermoactivation of thermolabile enzymes by trehalose and its application for the synthesis of full length CDNA. Proc. Natl. Acad. Sci. U.S.A. 95 (2), 520-524 (1998)

Itoh,M., Kitsunai,T., Akiyama,J., Shibata,K., Izawa,M., Kawai,J.,
Tomaru,Y., Carninci,P., Shibata,Y., Okazaki,Y. and Hayashizaki,Y.
Automated filtration-based high-throughput plasmid preparation system. Genome Res. 9 (5), 463-470 (1999)
Carninci,P. and Hayashizaki,Y.
High-efficiency full-length CDNA cloning. Methods Bnzymol. 303, 19-44 (1999)
                                                                                                                                                                                                          23-JUN-2000
testis Mus
                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                        Hayatsu, N.
                                                                                                                                                                                                                                                                                                         Craniata; Vertebrata; Euteleostomi;
Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                  M., Oda, H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         and
                                                                          Gaps
   Bam
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              visit our web site (http://genome.rtc.riken.go.j
                                                                        0
   end:
                                                                                                                                                                                   312 bp mRNA linear BB040926 RIKEN full-length enriched, 13 days embryo musculus cDNA clone 6030452I03 3', mRNA sequence. BB040926.1 GI:8447217
                                             298;
                                                                        Indels
 'n
                                             Length
Sall;
                                                                        ..
0
 end:
                                             1;
                                            DB 1
95;
                                          Score 16; DB
Pred. No. 95;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /tissue_type="testis"
/dev_stage="13 days embryo"
ÿ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /organism="Mus musculus'
/mol_type="mRNA"
/strain="C57BL/6J"
/db_xref="taxon:10090"
/clone="6030452103"
Cloning sites,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Location/Qualifiers
1. .312
                                                                                                                                                                                                                                                                                                musculus (house mouse)
                                                                      ·.
                                                                                                                                 211
                                          84.2%;
larity 100.0%;
Conservative (
                                                                                                    16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sex="male"
                                                                                                                               196 AATTATTGATTCTGTA
H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             details
FLC
                                                     1 Similarity
16; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -44 (1999)
                                                                                                                                                                                                                                                                                                  Mus
                                          Match
                               Query Ma.
-+ Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bource
                                                                                                                                                                                         BB040926/c
                                                                                                                                                                                                                      DEFINITION
                                                                                                                                                                                                                                                                                              SOURCE
ORGANISM
                                                                                                                                                                                                                                                   ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                        REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE
JOURNAL
                                                                      Matches
                                                                                                                                                                                                                                                                               KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMMENT
                                                                                                                                                                             RESULT
             ORIGIN
```

```
Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 375)

Dias Neto, E., Garcia Correa, R., Verjovski-Almeida, S., Briones, M.R., Nagai, M.A., da Silva, W. Jr., Zago, M.A., Bordin, S., Costa, F.F., Goldman, G.H., Carvalho, A.F., Matsukuma, A., Baia, G.S., Simpson, D.H., Brunstein, A., deOliveira, P.S., Bucher, P., Jongeneel, C.V., O'Hare, M.J., Soares, F., Brentani, R.R., Reis, L.F., de Souza, S.J. and Simpson, A.J.
                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                           sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 expressed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sao Paulo-SP
                days embryo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note="Organ: placenta_normal; Vector: puc18; Site_1:
Smal; Site_2: Smal; A mini-library was made by cloning
                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                the FAPESP/LICR Human Cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EST 2
                                                                                                                                                                                                                                                                                                                                                                                                                              .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sequencing of the human transcriptome with ORF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Acad. Sci. U.S.A. 97 (7), 3491-3496 (2000)
                 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             375 bp mRNA linear CM2-GN0055-060900-356-e10 GN0055 Homo sapiens cDNA, CV317979 GI:52641193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         andar, 01509-010,
                                                                                                                                                                                                                                                                                                                                                                                            Length 312;
                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
     /clone_lib="RIKEN full-length enriched, male testis"
                                                                                                                                                                                                                                                                                                                                                                                                                             ;
0
                                                                                                                                                                                                                                                                                                                                                                                           2,
                                                                                                                                                                                                                                                                                                                                                                                         Score 16; DB 2; Pred. No. 95; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Contact: Simpson A.J.G.
Laboratory of Cancer Genetics
Ludwig Institute for Cancer Research
Rua Prof. Antonio Prudente 109, 4 and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Email: asimpson@ludwig.org.br
This sequence was derived from the
Project. http://www.ludwig.org.br
Location/Qualifiers
1. .375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  organism="Homo sapie"
mol_type="mRNA"
db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      dev_stage="Adult"
|clone_lib="GN0055"
|note="Organ: place
/lab host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                84.2%; SC.
100.0%; Pi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           rel: +55-11-2704922
Fax: +55-11-2707001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                39 AATTATTGATTCTGTA
                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
```

07

m 2

Mon May

```
University of Victoria
PO Box 3020 STN CSC, Victoria BC, V8W 3N5,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        84.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTATTGATTCTGTAGG 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Unpublished (2002)
                                                                                               Tumor Gene Index
Unpublished (1997)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
Matches 16; Conser
               Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 26
CA061810/c
LOCUS
DEFINITION
ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                  source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
AUTHORS
              ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Loc
Matches
                                                       REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JOURNAL
                                                                                                                JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KEYWORDS
                                                                                                                                                                                                                                                                                                                   FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMMENT
                                                                                   TITLE
                                                                                                                             COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOURCE
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    • ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20-DEC-1999
2389665 3',
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                  ne Expressed
                                                                                                                              ö
                                                                                                                                                                                                                                                           01-DEC-2001
                                                                                                                                                                                                                                                                                                                                          Oncorhynchus mykiss (rainbow trout)
Oncorhynchus mykiss
Oncorhynchus mykiss
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Euteleostei;
Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.
1 (bases 1 to 410)
Kim, S. and Killefer, J.
Analysis of Rainbow Trout (Oncorhynchus mykiss) Intestine Express
Sequence Tags
Unpublished (2001)
                                           tion were
   s Patent
             Cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                      BG360551
RTI00001 Rainbow Trout Intestine Lambda Zap II Vector library Oncorhynchus mykiss cDNA 5' similar to Unknown, mRNA sequence BG360551
BG360551.1 GI:17223416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note="Organ: Intestine; Vector: pBluescript SK(+/-)
Site_1: EcorR I; Site_2: Xho I
TAG_SEQ=Not found"
                                                                                                                                 Gaps
                              erse
products derived from ORESTES PCR (U.S. Letter application No. 196,716 - Ludwig Institute for Research) profiles into the pUC 18 vector. Revtranscription of tissue mRNA and cDNA amplifica performed under low stringency conditions."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AI760729
wi08f05.xl NCI_CGAP_CLL1 Homo sapiens cDNA clone IMAGE:2mRNA sequence.
AI760729
AI760729.1 GI:5176396
EST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /organism="Oncorhynchus mykiss"
/mol_type="mRNA"
/db_xref="taxon:8022"
/cell_type="Smooth muscle"
/clone_lib="Rainbow Trout Intestine Lambda Zap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .
0
                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 410;
                                                                                                   Length 375;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WV 26506-6108, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sciences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                               ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4
                                                                                                 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ore 16; DB 4 red. No. 95; Mismatches
                                                                                                  Score 16; DB 7; Pred. No. 95; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          and Veterinary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Unpublished (2001)
Contact: Killefer J
Contact: Killefer J
Division of Animal and Veterinary
West Virginia University
PO Box 6108, Morgantown, WV 26506-
Tel: 304 293 2631
Fax: 304 293 3740
Email: jkillef@wvu.edu
Insert Length: 410 Std Error: 0
Seg primer: T3 primer.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 16;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ő
                                                                                                                              °
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      380
                                                                                                                                                                       312 ATTATTGATTCTGTAG 297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19
                                                                                                                                                           17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               84.2%;
                                                                                                   84.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATTATTGATTCTGTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                               Similarity 100
16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local (
                                                                                                     Match
                                                                                                      Query Matc|
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DEFINITION
                                                                                                                                                                                                                                                                                                                                                               ORGANISM
                                                                                                                                                                                                                                                                           DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 25
AI760729
                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                RESULT 24
BG360551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                       ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VERSION
KEYWORDS
                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               JOURNAL
                                                                                                                                                                                                                                                                                                                                   KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMMENT
                                                                                                                                                                                                                                                                                                                      VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORIGIN
                                                                                                                                                                                                                                                                                                                                                 SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                         D
D
                                                                                                                                                             ઠે
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          04-MAR-2003
                                                                                                                                                                                                                                                                              Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Salmo salar (Atlantic salmon)
Salmo salar
Salmo salar
Salmo salar
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Euteleostei;
Protacanthopterygii; Salmoniformes; Salmonidae; Salmo.
1 (bases 1 to 506)
GRASP Consortium, Davidson, W.S., Koop, B.F. and
http://web.uvic.ca/cbr/grasp.
A survey of Salmo salar transcripts from high complexity cDNA
libraries
Chordata; Craniata; Vertebrata; Euteleostomi; Primates; Catarrhini; Hominidae; Homo.
                                                                                 (CGAP)
                                                                                                                                                                                          John Byrd, M.D., Mike Grever,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                               Sequencing C
information
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ssalrgp001052 mixed_tissue Salmo salar cDNA, mRNA sequence.
CA061810
CA061810.1 GI:24392053
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eutel Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo 1 (bases 1 to 457)

NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                          Contact: Robert Strausberg, Ph.D.

Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Ash Alizadeh, John Byrd, M.D.,
Tissue Procurement: Ash Alizadeh, John Byrd, M.D.,
M.D., Louis M. Staudt, M.D., Ph.D.

CDNA Library Preparation: M. Bento Soares, Ph.D.

CDNA Library Arrayed by: Greg Lennon, Ph.D.

DNA Sequencing by: Washington University Genome Sec

Clone distribution: NCI-CGAP clone distribution inf
found through the I.M.A.G.E. Consortium/LLNL at:

www-bio.llnl.gov/bbrp/image/image.html
Insert Length: 2291 Std Error: 0.00
Seq primer: -40UP from Gibco
High quality sequence stop: 443.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 457;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 16; DB 1;
Pred. No. 95;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Contact: Koop BF
Centre for Biomedical Research
University of Victoria
```

Canada

.rst

```
EST
                                                                                                                                                                                                                                                                                                                 Query Match
Best Local S
Matches 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CK881762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOURCE
                                                                                                                                                                                                                                                                               ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                              <del>a</del>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    22-JUN-2004
IO4 3',
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                        /db_xref="taxon:8030"
/clone lib="mixed tissue"
/clone lib="mixed tissue"
/note="Vector: pcMVsport6; Library Creator: Research
Genetics; Atlantic salmon tissue contributors: Carlo
Biagi, Mitch Uh and Robert Devlin (DFO, Vancouver, B.C.),
Simon Jones (PBS, Nanaimo, B.C.), Seaspring Hatchery
(Crofton, B.C.), Rachel Roper (University of Victoria)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Picea glauca
Eukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta, Sukaryota, Viridiplantae, Streptophyta, Embryophyta, Tracheophyta, Spermatophyta, Coniferopsida, Coniferales, Pinaceae, Picea.

1 (bases 1 to 562)
Ralph,S., Kolosova,N., Cooper,D., Butterfield,Y., Kirkpatrick,R., Liu,J., Palmquist,D., Stott,J., Barber,S., Yang,G., Babakaiff,R., Brown-John,M., Chand,S., Featherstone,R., Masson,A., Mayo,M., Moran,J., Olson,T., Wong,D., Friedmann,M.F., Ritland,C.E., Siddiqui,A., Holt,R., Jones,S., Marra,M., Ellis,B.E., Douglas,C., Ritland,K. and Bohlmann,J.
The spruce transcriptome: Analysis of expressed sequence tags from multiple cDNA libraries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Rm.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Contact: Joerg Bohlmann
Genome BC forest genomics program
University of British Columbia
UBC Biotechnology Laboratory, 6174 University Boulevard,
Vancouver, British Columbia, Canada, V6T 123
Tel: 1-604-822-0282
Fax: 1-604-822-6097
Email: bohlmann@interchange.ubc.ca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   __IO4 WS-ES-A-1 Picea glauca cDNA clone WS0014_
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                       University of Victoria
                                                                       cDNA preparation and sequencing:
Roberto Alberto, Marianne Beetz-Sargent, Maura Busby,
Peter Hunt, Linda McKinnel, BF Koop.
bioinformatics:
Gordon D Brown
POLYA=Yes.
                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 506;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ·
0
                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 16; DB; Pred. No. 95; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    organism="Picea glauca"
                                                                                                                                                                                                                      /organism="Salmo salar"
/mol_type="mRNA"
/strain="McConnell"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          quality sequence stop: 562
Tel: 250 472 4067
Fax: 250 472 4075
Email: bkoop@uvic.ca
Centre for Biomedical Research,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /db_xref="taxon:3330"
/clone="WS0014_104"
                                                                                                                                                                                Location/Qualifiers
1. .506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Picea glauca (white spruce)
Picea glauca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   mol_type="mRNA" cultivar="PG-29"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GI:49050663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           466
                                                                                                                                                                                                                                                                                                                                                                                                                                               84.2%;
larity 100.0%;
Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       multiple cDNA libr
Unpublished (2004)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CO228348
WS0014.B21 104
mRNA sequence.
CO228348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
16; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CO228348.1
EST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               POLYA=Yes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local
Matches
                                                                                                                                                                                                           source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C0228348/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURES
                                                                                                                                                                                       FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                              ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
```

```
/tissue_type="Young shoots"
/lab_host="E. coli DH10B cells"
/clone_lib="WS-ES-A-1"
/clone_lib="WS-ES-A-1"
/note="Organ: Foliage from 25 year old trees harvested at kalamalka Research Station in Vernon, British Columbia on June 15th, 2001; Vector: pBluescript II SK (+) XR; Site_1: EcoRI (5' end of cDNA); Site_2: XhoI (3' end of cDNA); CDNA was prepared from 5 micrograms of mRNA and directionally ligated into the pBluescript II SK (+) XR vector using the pBluescript II XR cDNA Library Construction Kit according to manufacturer's instructions with modifications (Stratagene). Plasmid DNA was then transformed by electroporation into DH10B cells (Invitrogen) for propagation."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EST 09-MAR-2004
Salmo salar cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Unpublished (2004)

Unpublished (2004)

Contact: Bjorn Hoyheim

Department of Basic Sciences and Aquatic Medicine

Norwegian School of Veterinary Science

PO Box 8146 DEP, NO-0033 Oslo, Norway

Tel: 47 22 96 47 03

Fax: 47 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Salmo salar (Atlantic salmon)
Salmo salar
Salmo salar
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Euteleostei;
Protacanthopterygii; Salmoniformes; Salmonidae; Salmo.
1 (bases 1 to 566)
Hoyheim, B.
Expressed Sequence Tags from an Atlantic salmon Head kidney cDNA library
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 566;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 562;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CK881762
SGP142112 Atlantic salmon Head kidney cDNA library clone FN4-1269, mRNA sequence.
CK881762
CK881762.1 GI:45311393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 7;
95;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 16; DB; Pred. No. 95; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 16;
Pred. No.
/sex="Hermaphrodite"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      126 AATTATTGATTCTGTA 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 84.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       84.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TATTGATTCTGTAGGT 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 AATTATTGATTCTGTA 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     146 TATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
16; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
16; Conser
```

.rst

.5

906-

us-10-619

```
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VERSION
KEYWORDS
                                    JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 31
CR315576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURES
                                                                                                                                                                                                     FEATURES
                                                      COMMENT
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOURCE
                                                                                                                                                                                                                                                                                                                                                                                              ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /organism="Mus musculus"
/mol_type="mRNA"
/db_xref="taxon:10090"
/clone="IMAGE:1514490"
/sex="female (lactating)"
/tissue_type="mammary gland"
/lab_host="DH10B"
/clone_lib="Soares mammary gland_NMLMG"
/note="vector: pT7T3D-Pac (Pharmacia) with a modified polylinker; lst strand cDNA was prepared from mammary gland tissue from a lactating female, and was then primed with a Not I - oligo(dT) primer. Double-stranded cDNA was ligated to Eco RI adaptors (Pharmacia), digested with Not I and cloned into the Not I and Eco RI sites of the modified pT7T3 vector. Library is normalized. Library was constructed by Bento Soares and M. Fatima Bonaldo."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BI946345
01088 leafy spurge Lambda HybriZAP 2.1 two-hybrid vector cDNA
Library Euphorbia esula cDNA clone 5AN 5' similar to tuber-specific
and sucrose-responsive element binding factor, mRNA sequence.
BI946345.1 GI:16284932
EST.
                                                      25-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Euphorbia esula (leafy spurge)
Euphorbia esula
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots;
rosids; eurosids I; Malpighiales; Euphorbiaceae; Euphorbioideae;
Euphorbieae; Euphorbia.

1 (bases 1 to 581)
Anderson, J. V. and Horvath, D. P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                     AW912973

uf47a10.y1 Soares_mammary_gland_NMLMG Mus musculus cDNA clone
IMAGE:1514490 5' similar to gb:M74525 UBIQUITIN-CONJUGATING ENZYME
E2-17 KD (HUMAN);, mRNA sequence.
                                                                                                                                                                                                                              cinae; Mus.
                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi, Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus (bases 1 to 581)

NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
                                                                                                                                                                                                                                                                                                                                                                                                               the
                                                                                                                                                                                                                                                                                                         Tumor Gene Index
Unpublished (1997)
Other ESTs: uf47a10.x1
Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
This clone is available royalty-free through LLNL; contact the IMAGE Consortium (info@image.llnl.gov) for further information.
MGI:941342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 581;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .;
?;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 16; DB 2; Pred. No. 95; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         esula (leafy spurge)
esula
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Seg primer: -40RP from Gibco
High quality sequence stop: ...
Location/Qualifiers
                                                                                                                                                                                      Mus musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ,
,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          293 TTATTGATTCTGTAGG 278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               84.2%;
                                                                                                                                                   GI:8078597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTATTGATTCTGTAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            l Similarity
16; Conserv
                                                                                                                                                                                                           Mus musculus
                                                                                                                                                AW912973.1
EST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LOCUS
DEFINITION
                    RESULT 29
AW912973/c
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM
                                                                                                                                                                                                           ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
AUTHORS
                                                                          DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 30
BI946345
                                                                                                                                 ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                           JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURES
                                                                                                                                                                                                                                                                                                                                                              COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORIGIN
                                                                                                                                                                                         SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                 .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-MAR-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Medicago truncatula (barrel medic)
Medicago truncatula
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots;
rosids; eurosids I; Fabales; Fabaceae; Papilionoideae; Trifolieae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   National de Sequencage
segref@genoscope.cns.fr
  adventitious buds
                                                                                                                                                                                                                                                     /clone="5AN"
/tissue_type="underground adventitious buds"
/dev_stage="3-day induced (decapitated)"
/clone_lib="leafy spurge Lambda HybrizAP 2.1 two-hybrid vector_cDNA Library"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CR315576

Medicago truncatula BAC ends cultivar Jemalong Al7 of Medicago truncatula, genomic survey sequence.

CR315576

GSS.01-MAR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Site 2:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Site 1: EcoRI ; Site .~Genoscope sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ..
                                                                                                                                                                                                                                                                                                                                                                                                  .;
0
                                                                                                USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 583;
                                                                                                                                                                                                                                                                                                                                                                    581;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                              58105
                                                                                                                                                                                                                                                                                                                                                                                                   Indels
    in underground
                                                                                                                                                                                                                                                                                                                                                                    Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     e - Centre l
(E-mail : 6
                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /organism="Medicago truncatula"
/organism="Medicago truncatula"
/mol type="genomic DNA"
/cultivar="Jemalong A17"
/db xref="taxon:3880"
/clone lib="MTE1"
/note="Vector: pIndigoBAC; Site_; Debelle F. and Chalhoub B.~Genomte1-4G23RM1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           o
O
                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                              Fargo,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 16; DB 9;
Pred. No. 95;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                      4
                                                                                                                                                                                                                                                                                                                                                                  ore 16; DB 4 red. No. 95; Mismatches
Identification of mRNAs expressed in of Euphorbia esula (leafy spurge) Unpublished (2000)
Contact: Anderson JV
Plants Science Research USDA/ARS, Biosciences Research Lab 1605 Albrecht Blvd., PO Box 5674, Far Tel: 701 239 1252
                                                                                                                                                                                                          esula"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Genoscope.

Direct Submission
Submitted (25-FEB-2004) Genoscope-
BP 191 91006 EVRY cedex - FRANCE (E
- Web : www.genoscope.cns.fr)
Location/Qualifiers
1..583
                                                                                                                                         Email: andersjv@fargo.ars.usda.gov
Seq primer: pAD5.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                    Score 16; ; Pred. No.
                                                                                                                                                                                                          /organism="Euphorbia
/mol_type="mRNA"
/db_xref="taxon:3993"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        o;
                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            84.2%;
                                                                                                                                                                                                                                                                                                                                                                    84.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           19
                                                                                                                                                                                                                                                                                                                                                                                                                                    16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (bases 1 to 583)
                                                                                                                                                                                                                                                                                                                                                                                                                                TATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          306 TATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
Matches 16; Conser
                                                                                                                                                                                                                                                                                                                                                                                    Similarity
16; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Medicago.
                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                     Local
```

```
CA353561
CA353561.1
EST.
                                                                                                              Fax: +4
Email:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCESSION
VERSION
         JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 34
CA353561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURES
                        COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /mol_type="mRNA"
/strain="McConnell"
/db_xref="taxon:8030"
/clone_lib="gut"
/note="Vector: pBlueScriptIISK+; Library Creator: Matthew
L Rise ; Atlantic salmon tissue contributors: Carlo Biagi,
Mitch Uh and Robert Devlin (DFO, Vancouver, B.C.), Simon
Jones (PBS, Nanaimo, B.C.), Seaspring Hatchery (Crofton,
B.C.), Rachel Roper (University of Victoria)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                          04-MAR-200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Lee,
J Stott,
                                                                                                                                                                 leostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Beck, A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EST.

Strongylocentrotus purpuratus
Strongylocentrotus purpuratus
Strongylocentrotus purpuratus
Eukaryota; Metazoa; Echinodermata; Eleutherozoa; Echinoidea;
Echinoidea; Euechinoidea; Echinoida;
Echinoidea; Euechinoidea; Echinoida;
Etrongylocentrotidae; Strongylocentrotus.

E 1 (bases 1 to 611)
Poustka, A.J., Groth, D., Hennig, S., Thamm, S., Cameron, A., Beck, P.
Reinhardt, R., Herwig, R., Panopoulou, G. and Lehrach, H.
Generation, annotation, evolutionary analysis, and database integration of 20,000 unique sea urchin EST clusters
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ΑŊ
                                                                                                                                                     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eute. Actinopterygii; Neopterygii; Teleostei; Euteleostei; Protacanthopterygii; Salmoniformes; Salmonidae; Salmo. 1 (bases 1 to 591) GRASP Consortium, Davidson, W.S., Koop, B.F. and http://web.uvic.ca/cbr/grasp.
A survey of Salmo salar transcripts from high complexity libraries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CD334984
StrPu536.001806 Sea urchin embryo 40hr gastrula stage cDN MPMGp536 Strongylocentrotus purpuratus cDNA clone CALTp536A1138;MPI_536_38A11 5', mRNA sequence.
CD334984.1 GI:34801507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Guin, D
Spence,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ω
                                        EST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             591;
                                      591 bp mRNA linear salar cDNA, mRNA sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                         Canada
                                                                                                                                                                                                                                                                                                                                                                                                                 Email: bkoop@uvic.ca
Genome Sciences Centre, BC Cancer Agency
cDNA preparation, sequencing and bioinformatics:
Y Butterfield, R Kirkpatrick, J Asano, N Girn, R
S Lee, T Olson, P Pandoh, A Prahbu, D Smailus, L
S Taylor, G Yang, J Schein, S Jones and M Marra.
POLYA=Yes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                              Unpublished (2002)
Contact: Koop BF
Centre for Biomedical Research
University of Victoria
PO Box 3020 STN CSC, Victoria BC, V8W 3NS,
Tel: 250 472 4067
Fax: 250 472 4075
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ore 16; DB 6 red. No. 95; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Location/Qualifiers
1. .591
/organism="Salmo salar"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 16;
Pred. No.
                                                                                                                      Salmo salar (Atlantic salmon)
Salmo salar
                                                     ssalplnb506296 gut Salmo
CA043357
CA043357.1 GI:24344277
EST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         84.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             432 ratrgatrcrgraggr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          l Similarity
16; Conserv
                                                                                                                                           Balar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local 8
CA043357/c
LOCUS
                                                                                                                        SOURCE
ORGANISM
                                                     DEFINITION
                                                                     ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM
                                                                                                                                                                                                              REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                 JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
                                                                                                        KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CD334984
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          KEYWORDS
                                                                                                                                                                                                                                                                 TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
```

```
Email: poustka@molgen.mpg.de
The library was characterised by oligonucleotide fingerprinting
(ONF) to reduce sequencing redundancy. According to the ONF
(ONF) to reduce sequencing redundancy. According to the ONF
procedure, clones that display the same hybridisation matrix with a
battery of 200 8mer oligonucleotides are grouped into clusters. One
clone per ONF cluster is selected for sequencing. The size of each
cluster is an indicator of the frequency of a transcript in the
analysed library. The cluster size as well as the coordinates of
the other clones assigned to the same ONF cluster as the clone from
which the above EST is generated is available at the sea urchin
project web site at: http://www.molgen.mpg.de/ag_seaurchin/.cDNA
clones and filters are distributed via the Resource Center/Primary
Database of the German Human Genome Project (http://www.rzpd.de)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Oncorhynchus mykiss (rainbow trout)

SM Oncorhynchus mykiss
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Euteleostei;
Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.

E 1 (bases 1 to 622)
S Rexroad, C.E. 3rd, Lee, Y., Keele, J.W., Karamycheva, S., Brown, G., Koop, B., Gahr, S.A., Palti, Y. and Quackenbush, J.
Sequence analysis of a rainbow trout cDNA library and creation of a gene index
Cytogenet. Genome Res. 102 (1-4), 347-354 (2003)
Contact: Rexroad CE
USDA, ARS, National Center for Cool and Cold Water Aquaculture
11876 Leetown Road, Kearneysville, WV 25430, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note="Vector: pSport1; Site_1: Not1; Site_2: Sal1; Random primed and directionally cloned in pSport1 vector using a Not1 (5'-pGACTAGTTCTAGATCGCGAGCGGCCGCCC (T)15-3' and a Sal1 5'- TCGACCACGCGTCCG-3'adapters (Gibco BRL)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5-NOV-2002
D H04 5',
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ಥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5'-seq
3'-seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1. .611
/organism="Strongylocentrotus purpuratus"
/mol_type="mRNA"
/db_xref="taxon:7668"
/db_xref="taxon:7668"
/clone="CALTp536A1138;MPI_536_38A11"
/tissue_type="whole embryo"
/dev_stage="embryonic 40hr"
/lab_host="E.coli, XL1 blue"
/clone_lib="Sea urchin embryo 40hr gastrula stage cDNlibrary MPMGp536"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (M13FSP)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                r EST 05
1RT69P08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FORWARD: 5' CCCCAGGCTTTACACTTTATGCTTCCGGCTCG 3' (M13RSP)
BACKWARD: 5' GCTATTACGCCAGCTGGCGAAAGGGGGATGTG 3' (M13FSP)
Seq primer: 5'-CCGGTCCGGAATTCCCGGGT-3' pSport3/86
High quality sequence stop: 611.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 611;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CA353561
625083 NCCCWA 1RT Oncorhynchus mykiss cDNA clone 1
mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ·
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
Genome Res. 13 (12), 2736-2746 (2003)
Contact: Poustka AJ
laboraty 145, dept.Lehrach
Max-Planck-Institut fuer Molekulare Ge:
Ihnestr.63-73, D-14195 Berlin, Germany
Tel: +49 30 8413 1128
Fax: +49 30 8413 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 16; DB 6
Pred. No. 95;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GI:24598732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                th 84.2%;
Similarity 100.0%;
16; Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TATTGATTCTGTAGGT 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         297 TATTGATTCTGTAGGT
```

```
AATTATTGATTCTGTA
                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         . 642
                                                                                                                                                                                                                                                                                                                                                                                 Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EST
                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 36
CB502289
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMMENT
                                                                                                                                                                                                                                                                                                                               ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
a
                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Picea sitchensis (Sitka spruce)

Picea sitchensis

Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;

Spermatophyta; Coniferopsida; Coniferales; Pinaceae; Picea.

1 (bases 1 to 634)

S Ralph,S., Kolosova,N., Cooper,D., Butterfield,Y., Kirkpatrick,R.,

Liu,J., Palmquist,D., Stott,J., Barber,S., Yang,G., Babakaiff,R.,

Brown-John,M., Chand,S., Featherstone,R., Masson,A., Mayo,M.,

Moran,J., Olson,T., Wong,D., Friedmann,M.F., Ritland,C.E.,

Siddiqui,A., Holt,R., Jones,S., Marra,M., Ellis,B.E., Douglas,C.,

Ritland,K. and Bohlmann,J.

The spruce transcriptome: Analysis of expressed sequence tags from multiple cDNA libraries

Unpublished (2004)
                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              22-JUN-2004
IS0101 K21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   and old
                                                 25.c and ntified by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   237
                                                                                                                                                                                                                                                                           Sali;
liver,
                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Rm.
                                                                                                                                                                                                                                                                          .
.
.
.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Cm)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /tissue_type="Young root growth (terminal 1-3 cm root growth (distal to terminal 1-3 cm) tissues"
               Fax: 304 725 0351

Email: crexroad@ncccwa.ars.usda.gov

Single pass sequencing. Bases called with phred v0.02042

trimmed with the aid of the trim_alt option. Vector iden

cross_match v0.990329.

Seq primer: AGCGGATAACAATTTCACACAGGA.
                                                                                                                                                                                                                                                       /clone lib="NCCCWA 1RT"
/note="Vector: pCMV SPORT6; Site 1: Not1; Site Library made from pooled tissue from brain, gil spleen, muscle, and kidney."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CO217921
WS0101.B21_K21 SS-R-N-A-11 Picea sitchensis cDNA clone W
3', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Contact: Joerg Bohlmann
Genome BC forest genomics program
University of British Columbia
UBC Biotechnology Laboratory, 6174 University Boulevard,
Vancouver, British Columbia, Canada, V6T 1Z3
Tel: 1-604-822-0282
Fax: 1-604-822-6097
Email: bohlmann@interchange.ubc.ca
Plate: WS0101 row: K column: 21
High quality sequence stop: 634
                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                  Length
                                                                                                                                                  /organism="Oncorhynchus mykiss"
/mol_type="mRNA"
/db_xref="taxon:8022"
/clone="1RT69P08_D_H04"
/tissue_type="pooled"
/lab_host="DH108"
                                                                                                                                                                                                                                                                                                                                                                                                   °
                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       organism="Picea sitchensis"
(mol_type="mRNA"
                                                                                                                                                                                                                                                                                                                                                                  DB (
                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                   Score 16;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             db_xref="taxon:3332"
clone="WS0101_K21"
sex="Hermaphrodite"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cultivar="Gb2-229"
'db xref-"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            socation/Qualifiers
                                                                                                                     Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GI:49040235
                                                                                                                                                                                                                                                                                                                                                                   84.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                      TATTGATTCTGTAGGT
8340
0351
                                                                                                                                                                                                                                                                                                                                                                                  Similarity 100 16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .634
Tel: 304 724
Fax: 304 725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3', mRNA se
CO217921
CO217921.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            High quali
POLYA=Yes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         400
                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C0217921/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
                                                                                                                      FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOURCE
                                                                                                                                                                                                                                                                                                                                 ORIGIN
```

g

ò

```
/dev_stage="three year old clonal trees grown under greenhouse conditions in standard potting soil mixture."
/lab host="E. coli DH10B cells"
/clone_lib="SS-R-N-A-11"
/note="Torgan: Roots; Vector: pBluescript II SK (+) XR;
Site_1: EcoRI (5' end of CDNA); Site_2: XhoI (3' end of CDNA); mRNA was isolated from each tissue source independently and equal quantities of mRNA from each tissue were then pooled. cDNA was prepared from 5
micrograms of mRNA and directionally ligated into the pBluescript II SK (+) XR vector using the pBluescript II XR cDNA Library Construction Kit according to manufacturer's instructions with modifications
(Stratagene). Plasmid DNA was then transformed by electroporation into DH10B cells (Invitrogen) for propagation. Normalization was applied according to published methods [Bonaldo M.F. et al. (1996) Genome Research 6(9):791] in order to reduce the abundance of highly expressed transcripts."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     _organism="Salmo salar"
/mol_type="mRNA"
/strain="McConnell"
/db xref="taxon:8030"
/clone_lib="gut"
/note="Vector: pBlueScriptIISK+; Library Creator: Matthew
L Rise ; Atlantic salmon tissue contributors: Carlo Biagi,
Mitch Uh and Robert Devlin (DFO, Vancouver, B.C.), Simon
Jones (PBS, Nanaimo, B.C.), Seaspring Hatchery (Crofton,
B.C.), Rachel Roper (University of Victoria)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ;;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EST 16-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A preparation,
R Kirkpatrick, J
P Pandoh, A Prahbu,
J Schein, S Jones an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Actinopterygii; Neopterygii; Teleostei; Euteleostei; Protacanthopterygii; Salmoniformes; Salmonidae; Salmo.

1 (bases 1 to 642)
GRASP Consortium, Davidson, W.S., Koop, B.F. and http://web.uvic.ca/cbr/grasp.
A survey of Salmo salar transcripts from high complexity cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      642 bp mRNA linear EST CB502289 mRNA sequence. CB502289.1 GI:29313515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 634;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Canada
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Email: bkoop@uvic.ca
Genome Sciences Centre, BC Cancer Agency cDNA
sequencing and bioinformatics: Y Butterfield,
Asano, N Girn, R Guin, D Lee, S Lee, T Olson,
Smailus, L Spence, J Stott, S Taylor, G Yang,
M Marra.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    V8W 3N5,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 16; DB 7;
Pred. No. 95;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Victoria BC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                libraries
Unpublished (2002)
Contact: Koop BF
Centre for Biomedical Research
University of Victoria
PO Box 3020 STN CSC, Victoria BC
Tel: 250 472 4067
Fax: 250 472 4075
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Salmo salar (Atlantic salmon)
Salmo salar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         84.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 AATTATTGATTCTGTA 16
```

9

Н

.rst

S

```
206 TATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             . Similarity 100
16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sequence.
BX077071
BX077071.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local S
Matches 16
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                      source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BX077071
LOCUS
                                                                  REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DEFINITION
                                                                                                                                    JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     JOURNAL
                                                                                                                                                                                                                                                                                       FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KEYWORDS
                                                                                                          TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              <del>Д</del>
                                       ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                   Submitted (02-AUG-2001) Asao Fujiyama, The Institute of Physical and Chemical Research (RIKEN), Genomic Sciences Center (GSC);
1-7-22 Suehiro-chou, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan (E-mail:chimpbes@gsc.riken.go.jp, URL:http://hgp.gsc.riken.go.jp/, Tel:81-45-503-9111, Fax:81-45-503-9170)
Clones are derived from the chimpanzee BAC library RPCI-43 This BAC end was generated during the R&D process and may have higher chance of clone tracking errors.
                                                                                                                                                               09-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   06-NOV-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                        Euteleostomi;
                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CA377750
648 bp mRNA linear EST C 656393 NCCCWA 1RT Oncorhynchus mykiss cDNA clone 1RT40D13 mRNA sequence.
CA377750
CA377750
CA377750.1 GI:24697047
                                                                                                                                                                                                                                        Pan troglodytes (chimpanzee)
Pan troglodytes
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eute
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Pan
                                                                                                                                                          647 bp DNA linear GSS clone: RP43~014P17.TJ, genomic surv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Library
                                     ;
                                                                                                                                                                                                                                                                                                                                                                                  Taylor, T.D., Yada, T.
                                                                                                                                                                                                                                                                                                               Taylor, T.D., Yada, T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cell_type="lymphocytes"
clone_lib="RPCI-43 Chimpanzee Male BAC
                                     Indel
            Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length
                                     ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ;
0
            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1. .647
/organism="Pan troglodytes"
/mol_type="genomic DNA"
/db_xref="taxon:9598"
/clone="RP43-014P17.TJ"
           DB (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ore 16; DB 9 red. No. 95; Mismatches
          Score 16; DB
Pred. No. 95;
0; Mismatches
                                                                                                                                                                                                                                                                                                          Fujiyama, A., Hattori, M., Toyoda, A., Totoki, Y., Watanabe, H. and Sakaki, Y. BAC end sequences of Library RPCI-43 Unpublished
                                                                                                                                                                                                                                                                                                                                                                            Fujiyama, A., Hattori, M., Toyoda, A.,
Totoki, Y., Watanabe, H. and Sakaki, Y.
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 16; ; Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
84.2%; SC.
100.0%; P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       : pBACe3.
: EcoRI
: EcoRI.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                  GI:16681448
                                                                                          642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  84.2%;
ilarity 100.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 AATTATTGATTCTGTA 16
                                                                                                                                                                      Pan troglodytes DNA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /sex="male"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequencing: TJ
                                                                                  627 TATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                 (bases 1 to 647)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    496 AATTATTGATTCTGTA
                     Similarity 100
16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    R.Site 1
R.Site 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      qp/
                                                                                                                                                                                     sequence.
AG151770
AG151770.1
GSS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               . Similarity
16; Conser
                                                                                                                                                            AG151770
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LIBRARY
         Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local
                                                                                                                           AGIS1770
LOCUS
                                                                                                                                                                        DEFINITION
                                                                                                                                                                                                                                                      ORGANISM
                     Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DEFINITION
                                                                                                                                                                                                                                                                                               REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                   ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 38
CA377750
                                                                                                                                                                                                                            KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                     JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                        JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
                                                                                                                                                                                                             VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LOCUS
                                                                                       g
                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Q
Q
```

```
Oncorhynchus mykiss (rainbow trout)

SM Oncorhynchus mykiss

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Euteleostei;
Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.

E 1 (bases 1 to 651)
S Govoroun,M., Guiguen,Y. and Le Gac,F.
Construction and primary characterization of normalized cDNA libraries in rainbow trout, Oncorhynchus mykiss
Unpublished (2003)
On Jan 14, 2003 this sequence version replaced gi:27740490.
Contact: Guiguen Y
INRA - SCRIBE
Campus de beaulieu, RENNES cedex, 35042, France
Tel: 02.23.48.50.09
Fax: 02.23.48.50.09
Fax: 02.23.48.50.09
Fax: 02.23.48.50.00
Email: Yann.Guiguen@beaulieu.rennes.inra.fr
Sequence cleaned of vector, adaptator and repetitions. Contact us at sigenasupport@jouy.inra.fr to obtain the chromatogram of this
                                                                                                                                                                                                                                    Ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EST 07-MAY-2004
                                                                                                                                                                                                                                   당
                                                                  Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sall;
liver,
                                                                                                                                                                                                                                                                                                                                                                                                                                        Email: crexroad@ncccwa.ars.usda.gov
Single pass sequencing. Bases called with phred v0.020425.c and
trimmed with the aid of the trim_alt option. Vector identified |
cross_match v0.990329.
Seq primer: AGCGGATAACAATTTCACACAGGA.
Location/Qualifiers
                                                                                                                                                                                                                                creation
                                                                                                                                                                                                                                                  gene index
Cytogenet. Genome Res. 102 (1-4), 347-354 (2003)
Contact: Rexroad CE
USDA, ARS, National Center for Cool and Cold Water Aquaculture
11876 Leetown Road, Kearneysville, WV 25430, USA
Tel: 304 724 8340 x2129
Fax: 304 725 0351
                                                                                                                                                                         Brown, G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      zed multi-tissues library
tcad0005a.l.16 3prim, mR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
Oncorhynchus mykiss (rainbow trout)
Oncorhynchus mykiss
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleost
Actinopterygii; Neopterygii; Teleostei; Euteleostei;
Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.
1 (bases 1 to 648)
Rexroad, C.E. 3rd, Lee, Y., Keele, J.W., Karamycheva, S., Brown, G. Koop, B., Gahr, S.A., Palti, Y. and Quackenbush, J.
Sequence analysis of a rainbow trout cDNA library and creatic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /clone lib="NCCCWA 1RT"
/note="Vector: pCMV SPORT6; Site 1: NotI; Site 2:
Library made from pooled tissue from brain, gill,
spleen, muscle, and kidney."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BX077071
BX077071 AGENAE Rainbow trout normalized (tcad) Oncorhynchus mykiss cDNA clone tca

    . 648
    /organism="Oncorhynchus mykiss"

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 16; DB
Pred. No. 95;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /mol_type="mRNA"
/db_xref="taxon:8022"
/clone="1RT40D13_B_B07"
/tissue_type="pooled"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    84.2%; SC.
100.0%; Pr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GI:42604961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4 TATTGATTCTGTAGGT 19
```

EST 27-MAR-2003 steelhead whole

Mon

```
669 bp DNA linear GSS 28-SEP-2003 tigr-gss-dog-17000366094583 Dog Library Canis familiaris genomic, genomic survey sequence.
CE545000
CE545000.1 GI:36861781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                preparation,
R Kirkpatrick, J
P Pandoh, A Prahbu, D
J Schein, S Jones and
                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Actinopterygii; Neopterygii; Teleostei; Euteleostei; Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.

1 (bases 1 to 655)
GRASP Consortium, Davidson, W.S., Koop, B.F. and http://web.uvic.ca/cbr/grasp.
A survey of Salmo salar transcripts from high complexity cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /note="Vector: pBlueScriptIISK+; Library Creator: Ma
L Rise, BF Koop ; Rainbow trout tissue contributors:
Robert Devlin (DFO, Vancouver, B.C.)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Chilliwack River
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Canis familiaris (dog)
Canis familiaris
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Carnivora; Fissipedia; Canidae;
1 (bases 1 to 669)
                                                                                                                       655 bp mRNA linear Omcorhynchus mykiss Chilliwack River CB497718 CI:29308944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              655;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Canada
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Email: bkoop@uvic.ca
Genome Sciences Centre, BC Cancer Agency cDNA
sequencing and bioinformatics: Y Butterfield,
Asano, N Girn, R Guin, D Lee, S Lee, T Olson,
Smailus, L Spence, J Stott, S Taylor, G Yang,
M Marra.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /organism="Oncorhynchus mykiss"
/mol_type="mRNA"
/strain="Chilliwack River steelhead"
/db_xref="taxon:8022"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Victoria BC, V8W 3N5,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /clone_lib="Oncorhynchus mykiss whole"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 16; DB 6; Pred. No. 95; 0; Mismatches
                                                                                                                                                                                                                                      mykiss (rainbow trout)
                                                                                                                                                                                                                                                                                                                                                                                                                           Contact: Koop BF
Centre for Biomedical Research
University of Victoria
PO Box 3020 STN CSC, Victoria BC
Tel: 250 472 4067
Fax: 250 472 4075
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
1. .655
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                84.2%;
               19
                                                                                                                                                                                                                                 Oncorhynchus mykiss
Oncorhynchus mykiss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     libraries
Unpublished (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity 100
16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       POLYA=Yes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local S
Matches 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     495
                4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 42
CE545000/c
                                                                                                 RESULT 41
CB497718/C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCESSION
VERSION
KEYWORDS
                                                                                                                                                   DEFINITION
                                                                                                                                                                                                                                                      ORGANISM
                                                                                                                                                                                  ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                         REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                              JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURES
                                                                                                                                                                                                                                                                                                                                                                             TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                             COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     д
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ઠે
                ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CE160496

CE160496

Ox tigr-gss-dog-17000371420074 Dog Library Canis familiaris genomic, genomic survey sequence.

CE160496.1 GI:35289890

GSS.

Canis familiaris (dog)

Canis familiaris (dog)

SM Canis familiaris

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.

E 1 (bases 1 to 651)

S Kirkness, E.F., Bafna, V., Halpern, A.L., Levy, S., Remington, K., Rusch, D.B., Delcher, A.L., Pop, M., Wang, W., Fraser, C.M. and Venter, J.C.

The dog genome: survey sequencing and comparative analysis

L Science 301 (5641), 1898-1903 (2003)

L 512627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      25-SEP-2003
                                                                                                                                                                                                       ti-tissues
                                                            /organism="Oncorhynchus mykiss"
/mol_type="mRNA"
/db_xref="taxon:8022"
/clone="tcad0005a.1.16"
/tissue_type="adipose tissue, blood, brain,
differentiating gonads, interrenal, intestine, kidney,
liver, muscle, ovary, pituitary, testis"
/lab_host="DH108"
/clone_lib="AGENAE Rainbow trout normalized multi-tissue
library (tcad)"
/note="Vector: pT7T3D-pac; Clone distribution : AGENAE
Resource centre. Francois PIUMI,
Francois.Piumi@jouy.inra.fr, INRA, CEA Radiobiologie et
Etude du genome (LREG), Domaine de Vilvert, 78352,
Jouy-en-Josas cedex, France, +33 (0) 1.34.65.28.02, +33
(0) 1.34.65.22.73"
                                                                                                                                                                                                                                                                            et
                                                                                                                                                                                                                                      AGENAE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                 Gabs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŭ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              prepared
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9712 Medical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 651;
                                                                                                                                                                                                                                                                                                                                                                              Length 651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /mol_type="genomic DNA"
/strain="Standard Poodle"
/db_xref="taxon:9615"
/clone_lib="Dog_Library"
/note="Site_1: BstXI; Libraries were
peripheral_blood"
                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TIGR,
                                                                                                                                                                                                                                                                                                                                                                             DB 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   <u>و</u>
ز
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 16; DB 9; Pred. No. 95; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                            Score 16; DB; Pred. No. 95; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           organism="Canis familiari
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The Institute for Genomic Research
Department of Eukaryotic Genomics,
Rockville, MD 20850, USA
9
Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Location/Qualifiers
 column:
                      r: T3.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Tel: 301-838-0200
Fax: 301-838-0208
Email: ekirknes@tigr.org
Class: shotgun.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 100.0%; E
Matches 16; Conservative 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     162
                                                                                                                                                                                                                                                                                                                                                                             84.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Contact: Kirkness EF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 147 TATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                   TATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
  row:
                                                     .651
0005
                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity
nes 16; Conser
Plate: 0005
Seq primer:
                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CE160496/c
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE
PUBMED
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE
                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PEATURES
                                  FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VERSION
                                                                                                                                                                                                                                                                                                                                                                                                Best
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     d
```

°,

Gaps

.. 0

Euteleostomi; Canis.

steelhead

-619-906-5

-10

```
Seq primer: -28
Class: shotgun
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BH973406.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BH973406
odj04e11.g
sequence.
BH973406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           High
High
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BH973406/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    21-JUN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Picea engelmannii x Picea sitchensis
Picea engelmannii x Picea sitchensis
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Coniferopsida; Coniferales; Pinaceae; Picea.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Spermatophyta; Coniferopsida; Coniferales; Pinaceae; Picea.

1 (bases 1 to 683)
Ralph, S., Kolosova, N., Cooper, D., Butterfield, Y., Kirkpatrick, R., Liu, J., Palmquist, D., Stott, J., Barber, S., Yang, G., Babakaiff, R., Brown-John, M., Chand, S., Featherstone, R., Masson, A., Mayo, M., Moran, J., Olson, T., Wong, D., Friedmann, M.F., Ritland, C.E., Siddiqui, A., Holt, R., Jones, S., Marra, M., Ellis, B.E., Douglas, C., Ritland, K. and Bohlmann, J.

The spruce transcriptome: Analysis of expressed sequence tags from multiple cDNA libraries
Unpublished (2004)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  x Picea sitchensis cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
     Levy, S., Remington, K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Rm.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Contact: Joerg Bohlmann
Genome BC forest genomics program
Genome BC forest genomics program
University of British Columbia
UBC Biotechnology Laboratory, 6174 University Boulevard, Rm
Vancouver, British Columbia, Canada, V6T 1Z3
Tel: 1-604-822-0282
Fax: 1-604-822-6097
Email: bohlmann@interchange.ubc.ca
Plate: WS0064 row: F column: 14
High quality sequence stop: 683
POLYA=Yes.
                        and
                                                     is
                                                    genome: survey sequencing and comparative analys 301 (5641), 1898-1903 (2003)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /organism="Picea engelmannii x Picea sitchensis"
/mol_type="mRNA"
/cultivar="Fal-1028"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                      Fraser, C.M.
                                                                                                                                                                                                                                                                                                                                                                               were prepared
                                                                                                                                                        9712 Medical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
Kirkness, E.F., Bafna, V., Halpern, A.L., Levy
Rusch, D.B., Delcher, A.L., Pop, M., Wang, W.,
Venter, J.C.
                                                                                                                                                                                                                                                                                 /organism="Canis familiaris"
/mol_type="genomic DNA"
/strain="Standard Poodle"
/db_xref="taxon:9615"
/clone_lib="Dog Library"
/note="Site_1: BstXI; Libraries weripheral blood"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Picea engelmannii
NA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ;
0
                                                                                                                                                     TIGR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                               σ
                                                                                                                Contact: Kirkness EF
The Institute for Genomic Research
Department of Eukaryotic Genomics, T
Rockville, MD 20850, USA
Tel: 301-838-0200
Fax: 301-838-0208
Email: ekirknes@tigr.org
                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 16; DB
Pred. No. 95;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 95;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  683 bp
                                                                                                                                                                                                                                                        Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  , mrna
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CO204386
WS0064.B21 F14 IS-B-A-7 P
clone WS0064 F14 3', mRNA
CO204386
CO204386.1 GI:49015561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 539
                                                                                                                                                                                                                                                                                                                                                                                                                                            84.2%;
100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TATTGATTCTGTAGGT 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                             . Similarity 100
16; Conservative
                                                                                                                                                                                                                                                                          .669
                                                                                                                                                                                                                                        shotgun.
                                                                 Science 3
22875432
14512627
                                                                                                                                                                                                                                      Class:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               554
                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local
                                                                                                                                                                                                                                                                          Source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 43
CO204386/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DEFINITION
                                                                                 MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM
                                                 TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCESSION
VERSION
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JOURNAL
                                                                                                                                                                                                                                                      FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
                                                                                                                    COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT
                                                                                                                                                                                                                                                                                                                                                                                                             ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              පු
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
```

```
/dD_xrel="taxon:2/3280".
/dlone="W80064_F14"
/slone="W80064_F14"
/sex="Hermaphrodite"
/lab_host="E. coli DH10B cells"
/clone lib="IS-B-A-7"
/note="Organ: Bark (with phloem and cambium attached) from one year old clonal trees grown under greenhouse conditions in standard potting soil mixture; Vector: pBluescript II SK (+) XR; Site_l: EcoRI (5' end of cDNA); Site_2: XhoI (3' end of cDNA); Bark was wounded using razor blades along the entire length of the tree at 5 mm intervals on opposite sides of the trunk. The same trees were also sprayed with a 0.01% (v/v) methyl jasmonate solution resuspended in 0.1% (v/v) methyl jasmonate solution resuspended in 0.1% (v/v) tween 20 (~50mLs per tree). Bark tissue with phloem attached was harvested 24 hours, 2 days, 4 days and 8 days after initiating the treatment. mRNA was isolated from each tissue were then pooled. CDNA was prepared from 5 micrograms of mRNA and directionally ligated into the pBluescript II SK (+) XR vector using the pBluescript II XR cDNA Library Construction Kit according to manufacturer's instructions with modifications (Stratagene). Plasmid DNA was then transformed by electroporation into DH10B cells (Invitrogen) for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GSS 02-OCT-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          survey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Tracheophyta;
                                                                                                                                                                                                                              CDNA)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                provided by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /organism="Brassica oleracea"
/mol_type="genomic DNA"
/db_xref="taxon:3712"
/clone_lib="B.oleracea002"
/note="Vector: pOTw13; Whole genome shotgun library from flowering buds. DNA was purified from a crude nuclear prep using Brassica oleracea TO1000DH3 buds provided by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Miner, T.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       genomic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     eudicots;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Brassica oleracea
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracl
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicor
rosids; eurosids II; Brassicales; Brassicaceae; Brassica.
1 (bases 1 to 686)
Delehaunty, K., Fewell, G., Fulton, L., McCombie, W.R., Miner
Nash, W., Rabinowicz, P.D. and Wilson, R.K.
Whole genome shotgun reads from Brassica oleracea
Unpublished (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .gl B.oleracea002 Brassica oleracea genomic,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 683;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Contact: Richard K. Wilson
Contact: Richard K. Wilson
Genome Sequencing Center
Washington University School of Medicine
Email: submissions@watson.wustl.edu
Plate: odj04 row: e column: 11
Seq primer: -28RPpOT reverse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 7;
95;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 16; DB Pred. No. 95; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 quality sequence start:
quality sequence stop: 4
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GI:23456409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              84.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            propagation."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 AATTATTGATTCTGTA 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     303 AATTATTGATTCTGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity 100
16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Brassica oleracea
```

Mon

```
/organism="Picea glauca"
/mol_type="mRNA"
/mol_type="mRNA"
/cultivar="PG-29"
/db_xref="taxon:3330"
/clone="wS0078_H05"
/sex="Hermaphrodite"
/tissue type="Flushing buds harvested May 16th, young shoots harvested June 15th, and mature shoots harvested June 15th, and mature shoots harvested June 15th, and mature shoots harvested June 15th.
/lab host="E. coli DH10B cells"
/clone lib="wS-PS-N-A-8"
/note="Organ: Foliage from 25 year old trees harvested at Kalamalka Research Station in Vernon, British Columbia in 2001; Vector: pBluescript II SK (+) XR; Site=1: EcoRI (5, end of cDNA); Site=2: XhoI (3' end of cDNA); mRNA was prepared from each tissue were then pooled. cDNA was prepared from anicrograms of mRNA and directionally ligated into the pBluescript II SK (+) XR vector using the pBluescript II XR cDNA Library Construction Kit according to manufacturer's instructions with modifications (Stratagene). Plasmid DNA was then transformed by electroporation into DH10B cells (Invitrogen) for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ralph,S., Kolosova,N., Cooper,D., Butterfield,Y., Kirkpatrick,R.,
Liu,J., Palmquist,D., Stott,J., Barber,S., Yang,G., Babakaiff,R.,
Liu,J., Palmquist,D., Stott,J., Barber,S., Yang,G., Babakaiff,R.,
Brown-John,M., Chand,S., Featherstone,R., Masson,A., Mayo,M.,
Moran,J., Olson,T., Wong,D., Friedmann,M.F., Ritland,C.E.,
Siddiqui,A., Holt,R., Jones,S., Marra,M., Ellis,B.E., Douglas,C.,
Ritland,K. and Bohlmann,J.
The spruce transcriptome: Analysis of expressed sequence tags from
multiple cDNA libraries
Unpublished (2004)
Contact: Joerg Bohlmann
Genome BC forest genomics program
University of British Columbia
University of British Columbia, Canada, V6T 1Z3
Tel: 1-604-822-0097
Email: bohlmann@interchange.ubc.ca
Plate: WS0078 row: H column: 05
High quality sequence stop: 687
                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                       22-JUN-2004
8_H05 3',
                         l the
ity Genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Picea glauca
Picea glauca
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta
Spermatophyta; Coniferopsida; Coniferales; Pinaceae; Picea.
1 (bases 1 to 687)
    Genomic
                                                                                                                                                                                                Gaps
Thosmas Osborn at the University of Wisconsin.

DNA was provided by Pablo Rabinowicz (CSHL) and shotgun library prepared at Washington Univers Sequencing Center."
                                                                                                                                                                                                                                                                                                                                                                                                                     linear EST cDNA clone WS007
                                                                                                                                                                                             °,
                                                                                                                                                  989
                                                                                                                                                                                                Indels
                                                                                                                                               Length
                                                                                                                                                                                            ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                    CO240857 687 bp mRNA WS0078.B21 H05 WS-PS-N-A-8 Picea glauca mRNA sequence.
                                                                                                                                              8;
                                                                                                                                              Score 16; DB 8
Pred. No. 95;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
                                                                                                                              84.2%; Sc.
100.0%; P<sub>1</sub>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GI:49063174
                                                                                                                                                                                                                                                  19
                                                                                                                                                                                                                                                                                                80
                                                                                                                                                                                                                                              Similarity 100
16; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CO240857.1
EST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  High quali
POLYA=Yes.
                                                                                                                                           Query Matcu
                                                                                                                                                     Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sonrce
                                                                                                                                                                                                                                                                                                                                                                                                CO240857/c
                                                                                                                                                                                                                                                                                                                                                                                                                                              DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
AUTHORS
                                                                                                                                                                        Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PEATURES
```

COMMENT

Bally Bridge

```
of
propagation. Normalization was applied according to published methods [Bonaldo M.F. et al. (1996) Genome Research 6(9):791] in order to reduce the abundance highly expressed transcripts."
```

ORIGIN

Gaps ö Length 687 Indels ; 0 7; DB 7 Score 16; DB Pred. No. 95; 0; Mismatches ö Query Match Best Local Similarity 100.0%; Matches 16; Conservative

ö

AATTATTGATTCTGTA ਨੇ 145 AATTATTGATTCTGTA 130

<del>Q</del>

Search completed: April 26, 2005, 16:54:18 Job time : 3141 secs

RESULT

ਨੇ

В

LOCUS

Oldsni Mark 18 Jeryd Silhil

Н

~

May

Mon

6.

```
5.1.6
Compugen Ltd
version - 2005
GenCore (c) 1993
        Copyright
```

nucleic search, using sw model OM nucleic

Search time 436 Seconds (without alignments) 257.970 Million cell updates/sec 08:28:02 2005, 26, April . по Run

US-10-619-906-5 19 Title: Perfect score:

aattattgattctgtaggt Н Sequence:

Gapext OLIGO\_NUC Gapop\_60.0 Scoring table:

60.0

19

residues 2959870667 4390206 segs, Searched:

0 Word size 8780412 parameters: of hits satisfying chosen number Total

seq length: seq length: 0B 0B Minimum Maximum

2000000000

summaries 45 Post-processing: Listing first

Database

A\_Geneseq\_16Dec04:\*
 geneseqn1990s:\*
 geneseqn2000s:\*
 geneseqn2001as:\*
 geneseqn2001as:\*
 geneseqn2002as:\*
 geneseqn2002bs:\*
 geneseqn2003bs:\*
 geneseqn2003ds:\*
 geneseqn2003ds:\*
 geneseqn2003ds:\*
 geneseqn2003ds:\*
 geneseqn2004bs:\*
 geneseqn2004bs:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

	Description	Adi53692 Human MMP	Abk53984 Human hea	Abq59213 Human col	Abx76392 Lung canc	Adf18051 Human mat	Adn39005 Cancer/an	Adn39708 Cancer/an	Adn39709 Cancer/an	Abv78217 Human MMP	Abz35793 Human MMP	Abx10036 Human MMP	Ab191758 Human pol	Aaa35052 Human ade	Aaf21174 Human low	Aah28229 Nucleotid	Abl62664 Colon ade	Abl65817 Lung canc	m	162102	Abl66489 Lung canc
SUMMARIES	ID	ADI53692	ABK53984	ABQ59213	ABX76392	ADF18051	ADN3 9005	ADN39708	ADN3 9709	ABV78217	ABZ35793	ABX10036	ABL91758	AAA35052	AAF21174	AAH28229	ABL62664	ABL65817	ABL64743	ABL62102	ABL66489
	DB	12	9	y	æ	10	11	11	11	9	9	9	y	ო	ო	4	9	9	9	9	9
	Length	119	458	589	1413	1413	1413	1413	1413	1653	1653	1653	1653	1778	1778	1778	1778		1778	1778	1778
	& Query Match	100.0	100.0	0	90	100.0	90	. 00	00	0	00	00	100.0	00	00	90	00	0	· 00	0	00
	Score	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	13
	ult No.	-	7	m	4	Ŋ	9	7	80	σ	10	11	12	13	14	15	16	17	18	19	20
	Result No.	1	ပ	υ	υ	O	υ	U	ပ	ບ	U	ບ	υ	υ	υ	υ	υ	υ	υ	O	U

Abn95681 Gene #217	23 Human	Acc51017 Human bla	Abx76137 Lung canc	Acf12895 Human cer	Add18687 Human dis	9 CDNA	Adf74444 Full leng	4677	Abz96868 Human nuc	Abd20717 Human pul	688	8		908	7	9	9	Adq23366 Human sof	Aac77981 Human can	Adb47336 Human cDN	Add29857 Human tum	Aaa35055 Human ade	Aaf21177 Human low	Abz96871 Human nuc	
6 ABN95681	6 ABK54023	8 ACC51017	8 ABX76137	8 ACF12895	10 ADD18687	10 ADF18049	10 ADF74444	10 ACC46771	10 ABZ96868	11 ABD20717	12 ADI53688	12 ADN05808	12 ADQ29584	13 ADR24908	8 ABZ20476	AAF8162	4 AAC64994	12 ADQ23366	3 AAC77981	10 ADB47336	10 ADD29857	3 AAA35055	3 AAF21177	10 ABZ96871	
1778	1778	1778	1778	1778	1778	1778	1778	1778	1778	1778	1778	1778	1778	1778	1781	-	1818	1873	~	1988	2870	9137	9137	13	
90	90.	90	00	90	90	00.	00	000.	900.	000	00	100.0	00	00	00	00	00	00	00	00	00	00	00	00	
												19													
~	7	7	0	7	7	~	~	~	m	ന	က	c 33	'n	æ	ന	æ	ന	n	4	4	4	4	4	4	

## ALIGNMENTS

Antiinflammatory; Antipsoriatic; Antiasthmatic; Antiarthritic; Respiratory; antisense oligonucleotide; matrix metalloproteinase 12; MMP-12; inflammatory bowel disease; ulcerative colitis; Crohn's disease; rheumatoid arthritis; psoriasis; emphysema; asthma; human; ss. ស SEQ ID oligonucleotide, вр standard; DNA; 19 entry) antisense (first WO2004009098-A1 Human MMP-12 Homo sapiens Synthetic. 22-APR-2004 RESULT 1 ADI53692 ID ADI53692 8 ADI53692; 

29-JAN-2004

2003WO-SE001223 17-JUL-2003;

2002SE-00002253 2002US-0407680P 18-JUL-2002; 04-SEP-2002;

(INDE-) INDEX PHARM AB

ij Good <u>а</u> Stein Von ò Stein Von Z, Loefberg Dieckmann A,

WPI; 2004-123288/12

acid encoding a composition for a human patient e.g. nucleic or preparing disorder in ø e targeted to , useful for p dependent dis New compound having a sequence metalloproteinase 12 (MMP-12), treating or preventing MMP-12 casthma or psoriasis.

Claim 7; SEQ ID NO 5; 55pp; English.

The present invention relates to antisense oligonucleotides (ADI53690-ADI53701) for matrix metalloproteinase 12 (MMP-12; ADI53688 and ADI53689), which specifically hybridise with the nucleic acid encoding

S

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The invention relates to an isolated polynucleotide (I) comprising sequences selected from 273 sequences fully defined in the specification.

(I), including its encoded polypeptide (II), an antibody binding to (II), a fusion protein comprising (II) and a T-cell population stimulated by (I) or (II) are useful for stimulating an immune response in a patient and treating head and neck cancer in a patient. An oligonucleotide (III) that hybridises to (I) is useful for determining the presence of cancer in a patient, by obtaining a biological sample from the patient, contacting the sample with (III), detecting in the sample an amount of a polynucleotide that hybridises to the oligonucleotide, and comparing the amount of polynucleotide that hybridises to the oligonucleotides to a predetermined cut-off value. (I) and (II) are useful in pharmaceutical compositions, e.g. vaccines, and other compositions for the diagnosis and treatment of head and neck cancer. ABK53806-ABK54078 represent human head
MMP-12 and inhibiting the translation of MMP-12 protein. The antisense oligonucleotides are useful for preparing a composition for treating or preventing MMP-12 dependent disorder in a human patient e.g. inflammatory bowel disease, such as ulcerative colitis and Crohn's disease, rheumatoid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           useful
ind neck
                                                                                                                                                                                                                                                                                                                                                                      vaccine;
                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         sotide encoding head and neck tumor polypeptides, compositions, e.g. vaccines, for treating head a
                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                     and neck cancer; tumour; cytostatic; immunogenic;
                                                                                                          19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0 Other;
                                                                                                                                    Indels
                                                                                                          Length
                                                                               0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          u;
                                                                                                                                  ·;
                                                                                                         12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  invention
                                                                                                                                                                                                                                                                                                                                           SEQ ID No 179.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            T; 0
                                                                                                        DB 12
0.35;
                                                                                                                                    Mismatches
                                                     emphysema or asthma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           108
                                                                                                          Score 19;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   I neck cancer. ABK sequences of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 1; Page 168-169; 200pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .;
ö
                                                                              9 T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100
                                                                                                                                                                                                                                                                                                                                          CDNA,
                                                                                                                                                               19
                                                                                                                                                                                         19
                                                                              .;
Ö
                                                                                                                                    .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ວີ
                                                                                                                                                                                       AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                            458
                                                                                                                                                               AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   03-AUG-2000; 2000US-0223281P
16-NOV-2000; 2000US-0249933P
                                                                                                          100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2001WO-US024226
                                                                               4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; 99
                                                                                                                                                                                                                                                                                                                                            tumour
                                                                                                                                                                                                                                                                                                                 entry)
                                                                               ່ວ
                                                                                                                                    Conservative
                                                                                                                                                                                                                                                            CDNA;
                                                                               5 A; 1
                                                     arthritis, psoriasis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Novel polynucleotide
pharmaceutical compos
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            458 BP; 151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2002-257467/30
                                                                                                                                                                                                                                                                                                               (first
                                                                                                                                                                                                                                                                                                                                           and neck
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CORIXA CORP
                                                                                                                     1 Similarity
19; Conserv
                                                                                                                                                                                                                                                            standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cancer
                                                                               19 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                      WO200212329-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Fan
                                                                                                                                                                                                                                                                                                                                                                                                           sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-AUG-2001;
                                                                                                                                                                                                                                                                                                                                                                   Human; head
                                                                                                                                                                                                                                                                                                               05-JUN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 14-FEB-2002
                                                                                                                                                                                                                                                                                                                                           Human head
                                                                                                                                                                                                                                 RESULT 2
ABK53984/c
ID ABK53984
                                                                                                                                                                                                                                                                                                                                                                                    88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                 Sequence
                                                                                                 Query Ma.
                                                                                                          Match
                                                                                                                                                                                                                                                                                      ABK53984
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (CORI-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cancers
                                                                                                                                                                                                                                                                                                                                                                                    dene;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI;
                                                                                                                                                                                                                                                                                                                                                                                                             Homo
                                                                                                                                    Matches
22222XXX
                                                                                                                                                                                                                                                                                      д
                                                                                                                                                               ð
```

```
ABQ56306 to ABQ60787 represent isolated nucleic acids (I) differentially expressed in cancer tissues. ABB78993 to ABB79004 represent proteins encoded by the ABQ60776 to ABQ60787 nucleic acid sequences. (I) can be used in antisense therapy. An antibody immunoreactive with a polypeptide encoded by (I) is useful for detecting cancer in a patient sample, and for detecting the presence of a polymucleotide encoded by a nucleic acid which hybridises to (I) in a cell. A probe/primer derived from (I) can be used for determining the presence of a nucleic acid which hybridises to (I), and for determining the phenotype of cells in a sample of cells from a patient. (I) is useful for determining the presence of state of other type of cancer, in antisense therapy, to generate state of other type of cancer, in antisense therapy, to generate state of other type of cancer, in antisense therapy, to generate corresponding gene resides, and in tissue profiling, forensics, genetic analysis, mapping and diagnostic applications. (I) can be used to raise antibodies, and to screen for peptide analogues and antagonists
0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ő
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Molino GA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cancer
                                                                                                                                                                                                                                                      mapping;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  i,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ;
0
ö
                                                                                                                                                                                                                       related nucleotide sequence SEQ ID NO:2908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   y expressed i colon cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 589;
                                                                                                                                                                                                                                              forensic; ma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Dwivedi P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
 Indels
                                                                                                                                                                                                                                                   colon cancer; cancer; tissue profiling; forensicanalysis; diagnostic; antisense therapy; gene;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 589 BP; 182 A; 120 C; 134 G; 144 T; 0 U;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New isolated nucleic acid that is differentially tissues useful for determining the presence of cctissue type, and in antisense therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ;
0
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 19; DB 6;
Pred. No. 0.33;
; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Catino TJ,
Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         e JH, Carroll E,
Lewis ME;
                                                          330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AATTATTGATTCTGTAGGT 19
                              1 AATTATTGATTCTGTAGGT 19
                                                                                                                                   589 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 1; Fig 1; 796pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
 .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       419 AATTATTGATTCTGTAGGT
                                                    348 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                       2001WO-US030732
                                                                                                                                                                                                                                                                                                                                                                                                                     2000US-0237271P
                                                                                                                                                                                            (first entry)
                                                                                                                                   CDNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Astle JH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2002-426115/45
                                                                                                                     1213/c
ABQ59213 standard;
                                                                                                                                                                                                                           cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
Matches 19; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                 (FARB ) BAYER CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Burgess C, Ast
Thiaglingam A,
                                                                                                                                                                                                                                                                                                                              WO200229086-A2
                                                                                                                                                                                                                                                                                                 Homo sapiens.
                                                                                                                                                                                                                                                       colon
                                                                                                                                                                                                                                                                                                                                                                                        02-OCT-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                  02-OCT-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                tissue type,
                                                                                                                                                                                                                         colon
                                                                                                                                                                                             02-AUG-2002
                                                                                                                                                                                                                                                                                                                                                            11-APR-2002
 19;
                                                                                                                                                                ABQ59213;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -1
                                                                                                                                                                                                                                                                    genetic
                                                                                                                                                                                                                                                        Human;
                                                                                                                                                                                                                           Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI;
   Matches
                                                                                                      RESULT
                                                                                                                     ABQ59
                                                                                                                                                                                                                                      g
                                                          요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ਨੇ
                                ð
```

RESULT 4 ABX76392/c

Length 458;

.. 9

DB

Score 19; Pred. No.

100.0%;

Similarity

Local

Query Best L

i

Match

0.34;

3

1413

CDNA;

standard;

ADF18051

RESULT 5 ADF18051/c

ADF18051;

```
The invention relates to a method for detecting a lung cancer-associated transcript in a cell from a patient, comprising contacting a biological sample from the patient. With a polynucleotide that selectively hybridises to a sequence that is at least 80 % identical to a gene that exhibits increased or decreased expression in lung cancer samples. Lung cancer-associated polynucleotides and polypeptides are used for identifying a compound that modulates a lung cancer-associated polypeptide, for inhibiting proliferation of a lung cancer-associated cell to treat lung cancer in a patient and for treating a mammal having lung cancer by administering a modulatory compound identified. The methods are useful for treating lung cancer, such as small cell lung cancer, non-small cell lung cancer or other benign or precancerous lesions, e.g. atelectasis, emphysema, bronchitis, chronic obstructive pulmonary disease, fibrosis, hypersensitivity pneumonitis, interstitial pulmonary fibrosis, asthma and bronchiectasis. The genes, polynucleotides and polypeptides are useful for diagnostic purposes and as targets for screening for therapeutic compounds that modulate lung cancer-associated polynucleotides of the ABX76124-ABX76474 represent lung cancer-associated polynucleotides of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          iological
hybridises
xhibits
                                                                                                                                Lung cancer-associated polynucleotide; gene; ds; cytostatic; emphysema; antiinflammatory; antiasthmatic; non-small cell lung cancer; atelectasis; small cell lung cancer; benign lesion; precancerous lesion; bronchitis; chronic obstructive pulmonary disease; hypersensitivity pneumonitis; interstitial pulmonary fibrosis; fibrosis; asthma; bronchiectasis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          associated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 from a patient
uple from the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 reat lung
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Detecting a lung cancer-associated transcript in a cell from a for treating lung cancer, by contacting a biological sample from patient with a polynucleotide that exhibits increased or decresexpression in lung cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ŧ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               422 A; 306 C; 289 G; 396
                                                                                                    cancer-associated polymucleotide #256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 22; Page 385; 453pp; English
                                                                                                                                                                                                                                                                                                                                                                                   2001US-0284770P.
2001US-0390492P.
2001US-0339245P.
2001US-0350666P.
2001US-0334370P.
standard; DNA; 1413
                                                                                                                                                                                                                                                                                                                                                      2002WO-US012476
                                                                      entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BIOTECHNOLOGY
                                                                     (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2003-093161/08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Murray R;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 1413 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   P-PSDB; ABU56663
                                                                                                                                                                                                                                                                                WO200286443-A2
                                                                                                                                                                                                                                                                                                                                                                                      18-APR-2001;
10-MAY-2001;
09-NOV-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                        13-NOV-2001;
29-NOV-2001;
12-APR-2002;
                                                                                                                                                                                                                                               Unidentified
                                                                                                                                                                                                                                                                                                                                                     18-APR-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EOS
                                                                     02-APR-2003
                                                                                                                                                                                                                                                                                                                   31-OCT-2002
ABX76392
                                   ABX76392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              z
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (EOSB-)
                                                                                                        Lung
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI
```

```
The invention describes a method of identifying a compound capable of treating a metabolic disorder comprising assaying the ability of the compound to modulate a matrix metalloproteinase 12 (MMP-12) nucleic acid expression or MMP-12 polypeptide activity. The compound has anoretic, antidiabetic and immunomodulator properties. An antisense oligonucleotide or ribozyme targets the MMP-12 transcripts and inhibits translation. Alternatrively the oligonucleotide forms a triple helix with the promoter of the MMP-12 gene and inhibits transcription. The invention is used to identify a compound useful for treating a metabolic disorder, particularly obesity, overweight, diabetes, insulin resistance, cachexia or anorexia. This sequence encodes human matrix metalloproteinase 12 (MMP)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a compound capable of treating a metabolic disorder comprises r compounds that modulate matrix metalloprotease MMP-12
                                                                                                                                  ..
88;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                               obesity
                                                      anoretic; antidiabetic; immunomodulator; MMP-12 agonist;
MMP-12 antagonist; MMP-12 inverse agonist; anti-MMP-12 antibody,
antisense MMP-12; MMP-12 ribozyme; lipid homeostasis modulator;
glucose homeostasis modulator; insulin homeostasis modulator;
adipocyte growth modulator; metabolic disorder;
matrix metalloproteinase 12; MMP-12; translation inhibition; obe
overweight; diabetes; insulin resistance; cachexia; anorexia; ge
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 1413;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     U; 0 Other;
                            coding sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                             t= "Human MMP-12"
"Matrix metalloproteinase"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 19; DB 10;
Pred. No. 0.33;
); Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C; 289 G; 397 T;
                            (MMP-12)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Disclosure; SEQ ID NO 3; 38pp; English.
                                                                                                                                                                                                                  Location/Qualifiers
                            12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                             metalloproteinase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                         (MILL-) MILLENNIUM PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%;
ilarity 100.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ••
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                 2003US-00337632
                                                                                                                                                                                                                                                                                                                                                                                             2002US-0346354P
                                                                                                                                                                                                                                   1. .1413
/*tag= a
/product=
/note= "Ma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         expression or activity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2003-897814/82
P-PSDB; ADF18050.
(first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity
nes 19; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 1413 BP;
                                                                                                                                                                                                                                                                                                         US2003157110-A1
                                                                                                                                                                                                                                                                                                                                                                                            07-JAN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           for
                             matrix
                                                                                                                                                                                                                                                                                                                                                                 07-JAN-2003;
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Chen
                                                                                                                                                                                          sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Identifying
  12-FEB-2004
                                                                                                                                                                                                                                                                                                                                     21-AUG-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ٦
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             assaying
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                    WF,
                               Human
                                                                                                                                                                                         Ношо
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                     Key
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     est
                                          d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ਨੇ
```

ö

ö

ö

Indels

ö

Length 1413;

8;

Score 19;

100.0%; 100.0%;

0.33; DB

Pred. No. 0.3; Mismatches

; 0

Conservative

Local Similarity les 19; Conser

Query Match Best Local S Matches 19

343

AATTATTGATTCTGTAGGT 19

~

ઠે

361

dd

uB

They

```
Claim
                                                                                                                                                                             RESULT
                                                                                                                                                                                       ADN397
ID A
                                                                                                                                                                                                                                                           g
                                                                                                                   ਠੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The invention relates to nucleic acids and proteins (ADN38683-ADN40064)

whose expression is upregulated or downregulated in specific cancers or

cother diseases such as angiogenic or fibrotic disorders, and to methods

cof determining the presence or absence of a pathological cell in a

cof determining the presence or absence of a pathological cell in a

cof determining the presence or absence of a pathological cell in a

cof determining the presence or absence of a pathological cell in a

cof determining the presence or absence of a pathological cell in a

convention or by detecting a polypeptide of the invention. The

convention also relates to expression vectors and host cells comprising a

nucleic acid of the invention; antibodies which specifically bind a

colypeptide of the invention; use of such antibodies for drug targeting;

and methods of screening for modulators of activity or expression of the

polypeptides and nucleic acids. The nucleic acids, polypeptides,

antibodies and methods are useful for diagnosing, prognosing and treating

cancer and other conditions such as psoriasis, ischaemia, heart disease,

atherosclerosis, inflammatory diseases, autoimmune diseases, retinal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    patient,
detecting
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          treating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     targeting;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     rt disease, retinal
                                                                                                              Human; differential expression; cancer; angiogenic disorder; fibrotic disorder; psoriasis; ischaemia; heart disease; atherosclerosis; inflammatory disease; autoimmune disease; retinal neovascularistaion syndrome; scarring; uterine fibroid; detection; diagnosis; prognosis; drug screening; drug targeting; wound healing; contraception; cytostatic; cardiant; immunomodulatory; vulnerary; gene therapy; vaccine; gene; ss.
                                                                                           SEQ ID NO:323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cell in a comprises
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Hevezi
A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    of a pathological ctreating cancer,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Glynne R,
E. Zlotnik
                                                                                           acid,
                                                                                           nucleic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gish KC, G
Wilson KE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Determining the presence or absence of useful for diagnosing, prognosing or tan nucleic acid in a biological sample.
                                                                                           Cancer/angiogenesis/fibrosis-related
                       ВР
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1385pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ginsburg WM, Watson SR,
                                                                                                                                                                                                                                                                                                         2001US-0350666P.
2001US-0334393P.
2001US-0334393P.
2001US-0340376P.
2002US-0347211P.
2002US-0347211P.
2002US-0359077P.
2002US-0359077P.
2002US-0359077P.
2002US-0359077P.
2002US-0370110P.
2002US-0370110P.
2002US-0370110P.
2002US-0396839P.
2002US-0396839P.
2002US-0396839P.
2002US-0396839P.
2002US-0396839P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EOS BIOTECHNOLOGY INC
                       ADN39005 standard; cDNA; 1413
                                                                                                                                                                                                                                                                                      2002WO-US036810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2002US-040945
                                                                      entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ID NO 323;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Aziz N, Gi
Murray R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2003-468649/44
P-PSDB; ADN39006.
                                                                     (first
                                                                                                              Human; differential
fibrotic disorder
                                                                                                                                                                                                                                        WO2003042661-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQ
                                                                                                                                                                                                                                                                                                                      21-NOV-2001;
29-NOV-2001;
03-DEC-2001;
14-DEC-2001;
08-JAN-2002;
10-JAN-2002;
13-FEB-2002;
20-FEB-2002;
20-FEB-2002;
12-APR-2002;
12-APR-2002;
12-APR-2002;
12-APR-2002;
22-JUL-2002;
22-JUL-2002;
                                                                                                                                                                                                                                                                                      13-NOV-2002;
                                                                                                                                                                                                                   Homo sapiens
                                                                    17-JUN-2004
                                                                                                                                                                                                                                                                22-MAY-2003
                                              ADN39005;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  D,
DH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (EOSB-)
RESULT 6
ADN39005/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Afar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mack
```

```
patient,
detecting
                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                              disorder;
                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                      retinal neovascularistaion syndrome; scarring; uterine fibroid; detection; diagnosis; prognosis; drug screening; drug targeting; wound healing; contraception; cytostatic; cardiant; immunomodulatory vulnerary; gene therapy; vaccine; gene; ss.
and uterine fibroids. They contraception. The present sence of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cell in a comprises
                                                                                                                                                                                                                                                                                                                                                              Cancer/angiogenesis/fibrosis-related nucleic acid, SEQ ID NO:C80
                                                                                                                          ;
                                                                                           Length 1413;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hevezi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cell
                                                               C; 289 G; 396 T; 0 U; 0 Other;
                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                              Human; differential expression; cancer; angiogenic disor
fibrotic disorder; psoriasis; ischaemia; heart disease;
inflammatory disease; autoimmune disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ą;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 of a pathological treating cancer,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Glynne R,
, Zlotnik
                                                                                                                            ö
                                                                                             11;
                                                                                            Score 19; DB 1:
Pred. No. 0.33;
Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gish KC, G
Wilson KE,
                                  acid sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQ ID NO C80; 1385pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  absence of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Determining the presence or absence of useful for diagnosing, prognosing or tancleic acid in a biological sample.
  neovascularistaion syndromes, scarring
also be useful in wound healing and in
                                                                                                                                                                                                                                                                       BP
                                                                                                                                                                                            343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ginsburg WM,
                                                                                                                                                            13
                                                                                                                             ·;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2001US-0332464P.
2001US-0332464P.
2001US-0334393P.
2001US-0335394P.
2002US-034731P.
2002US-0347211P.
2002US-0347349P.
2002US-0355250P.
2002US-0356714P.
2002US-0356714P.
2002US-0356714P.
2002US-0356714P.
2002US-0356714P.
2002US-0356077P.
2002US-0356077P.
2002US-0356077P.
2002US-0356077P.
2002US-0356077P.
2002US-0370110P.
2002US-0370110P.
2002US-0396839P.
2002US-0396839P.
                                  sequence represents a nucleic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EOS BIOTECHNOLOGY INC
                                                                                                                                                                                                                                                                        1413
                                                                                              100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2002WO-US036810
                                                                                                                                                             AATTATTGATTCTGTAGGT
                                                                                                                                                                             AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2002US-0409450P
                                                                422 A; 306
                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                        CDNA;
                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Aziz N, Gi
Murray R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2003-468649/44
P-PSDB; ADN39925.
                                                                                                                                                                                                                                                            708/c
ADN39708 standard;
                                                                                                              Similarity
                                                                Sequence 1413 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO2003042661-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Aziz
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   21-NOV-2001;
29-NOV-2001;
03-DEC-2001;
14-DEC-2001;
08-JAN-2002;
10-JAN-2002;
13-FEB-2002;
29-MAR-2002;
29-MAR-2002;
12-APR-2002;
12-APR-2002;
16-JUL-2002;
22-JUL-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            09-SEP-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          13-NOV-2002;
                                                                                                                                                                                                                                                                                                                                      17-JUN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            22-MAY-2003
                                                                                                                               19
                                                                                              Query Match
Best Local S
Matches 19
                                                                                                                                                                                                                                                                                                       ADN39708;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DH,
                                                                                                                                                                                             361
                                                                                                                                                               Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (EOSB-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Afar
Mack
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ношон
```

8

Mon

· rng

S

```
ö
                                                                                                                                                                                         treating
                                                                                                                                                                                                          disease,
                                                                                                                                                            on of the
                                                                                                                                            targeting;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        human; differential expression; cancer; angiogenic disorder;
fibrotic disorder; psoriasis; ischaemia; heart disease; atherosclerosis;
inflammatory disease; autoimmune disease;
retinal neovascularistaion syndrome; scarring; uterine fibroid;
detection; diagnosis; prognosis; drug screening; drug targeting;
wound healing; contraception; cytostatic; cardiant; immunomodulatory;
vulnerary; gene therapy; vaccine; gene; ss.
The invention relates to nucleic acids and proteins (ADN38683-ADN40064)

whose expression is upregulated or downregulated in specific cancers or

cother diseases such as angiogenic or fibrotic disorders, and to methods

cot determining the presence or absence of a pathological cell in a

cot determining the presence or absence of the noventical to those of

the invention or by detecting a polypeptide of the invention. The

cinvention also relates to expression vectors and host cells comprising

concleic acid of the invention; antibodies which specifically bind a

concleic acid of the invention; use of such antibodies for drug targeting

concleic acids. The nucleic acids, polypeptides,

polypeptides and nucleic acids. The nucleic acids, prognosing and treatical antibodies and methods are useful for diagnosing, prognosing and treating continuations such as psoriasis, ischaemia, heart disease
                                                    methods
                      -ADN40064)
                                       cancers or
                                                                                                              comprising
                                                                                  hose of
                                                                                                                                                                                                                                         may
                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                         ley
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ID NO:C81.
                                                                                                                                                                                                       other conditions such as psoriasis, ischaemia, heart rosis, inflammatory diseases, autoimmune diseases, reristaion syndromes, scarring and uterine fibroids. The presectul in wound healing and in contraception. The presectul
                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                      sequence represents a nucleic acid sequence of the invention.
                                                                                                                                                                                                                                                                                                                                  Length 1413
                                                                                                                                                                                                                                                                                                  0 Other;
                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Cancer/angiogenesis/fibrosis-related nucleic acid,
                                                                                                                                                                                                                                                                                                     C; 289 G; 396 T; 0 U;
                                                                                                                                                                                                                                                                                                                                                                ;
0
                                                                                                                                                                                                                                                                                                                                    11;
                                                                                                                                                                                                                                                                                                                                   Score 19; DB 1:
Pred. No. 0.33;
                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           standard; cDNA; 1413 BP
                                                                                                                                                                                                                                                                                                                                                                                                 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2001US-0350666P.
2001US-0332464P.
2001US-0334393P.
2001US-0335394P.
2002US-0347211P.
2002US-0347211P.
2002US-0355250P.
2002US-0355250P.
2002US-0356714P.
2002US-0359077P.
2002US-0370110P.
2002US-0370110P.
2002US-0370246P.
2002US-0370246P.
2002US-0370246P.
2002US-0370246P.
2002US-0370246P.
2002US-0370246P.
2002US-0370246P.
2002US-0396839P.
2002US-0397775P.
                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                         atherosclerosis, inflammatory neovascularistaion syndromes,
                                                                                                                                                                                                                                                                                                                                   100.0%;
                                                                                                                                                                                                                                                                                                     Sequence 1413 BP; 422, A; 306
                                                                                                                                                                                                                                                                                                                                                                                                                        AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2002WO-US036810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      entry)
                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first
                                                                                                                                                                                                                                                                                                                                               l Similarity
19; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO2003042661-A2
                                                                                                                                                                                                                                                         also be useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                21-NOV-2001;
29-NOV-2001;
03-DEC-2001;
14-DEC-2001;
08-JAN-2002;
10-JAN-2002;
08-FEB-2002;
13-FEB-2002;
20-FEB-2002;
20-FEB-2002;
12-APR-2002;
12-APR-2002;
05-JUL-2002;
22-JUL-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      13-NOV-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        22-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       17-JUN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADN39709;
                                                                                                                                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                                                   \boldsymbol{\vdash}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADN39709
                                                                                                                                                                                                                                                                                                                                    Match
                                                                                                                                                                                                                                                                                                                                                  Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADN39709/c
                                                                                                                                                                                                                                                                                                                                                  Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                g
```

```
The invention relates to nucleic acids and proteins (ADN38683-ADN40064)
whose expression is upregulated or downregulated in specific cancers or
ther diseases such as angiogenic or fibrotic disorders, and to methods
of determining the presence or absence of a pathological cell in a

patient by detecting a nucleic acid at least 80% identical to those of
the invention or by detecting a polypeptide of the invention. The
invention also relates to expression vectors and host cells comprising a

nucleic acid of the invention; antibodies which specifically bind a

concer and of the invention; use of such antibodies for drug targeting;
and methods of screening for modulators of activity or expression of the
polypeptides and nucleic acids. The nucleic acids, polypeptides,
antibodies and methods are useful for diagnosing, prognosing and treating
cancer and other conditions such as psoriasis, ischaemia, heart disease,
atherosclerosis, inflammatory diseases, autoimmune diseases, retinal
neovascularistaion syndromes, scarring and uterine fibroids. They may
also be useful in wound healing and in contraception. The present
sequence represents a nucleic acid sequence of the invention.
                                                                                                                                patient,
detecting
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    dsRNA1; gene expression inhibitor; oncogene; cytostatic; zoacide; gene; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                              cell in a comprises
                                                    PA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 1413;
                                                    Hevezi
A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                               of a pathological treating cancer,
                                                   Glynne R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 19; DB 11;
Pred. No. 0.33;
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ë
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0.33;
                                                  Gish KC, G
Wilson KE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                       G; 396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                  English
                                                                                                                                Determining the presence or absence of useful for diagnosing, prognosing or to a nucleic acid in a biological sample.
                                                                                                                             absence o
                                                                                                                                                                                                                                                                                                                                                                                                                                                       C; 288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              343
                                                                                                                                                                                    SEQ ID NO C81; 1385pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ВР
                                                    Ginsburg WM, Watson SR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2001DE-0100586.
2001DE-01055280.
2001DE-01058411.
2001DE-01060151.
                            INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; 308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABV78217 standard; DNA; 1653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2002WO-EP000152
  2002US-0409450P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
N
                            BIOTECHNOLOGY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    virucide; protozoacide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ΠD
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 1413 BP; 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AG
                                                    Aziz N, Gi
Murray R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQ
                                                                                         WPI; 2003-468649/44
P-PSDB; ADN39926.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RIBOPHARMA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity
nes 19; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        inhibition;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO200255693-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    09-JAN-2001;
26-OCT-2001;
29-NOV-2001;
07-DEC-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           09-JAN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
09-SEP-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18-JUL-2002.
                            EOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MMP12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    15-NOV-2002
                                                                                                                                                                                     8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                     D,
DH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ABV78217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (RIBO-)
                          (EOSB-)
                                                                                                                                                                                   Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Loc
Matches
                                                    Afar
Mack
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ABV78217/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Б
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
```

ö

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ing tumors,
complementary
                                                                                                                                                                                                                                                  o£
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Plasmodium;
                                                                                                                                   double-stranded of one strand
                                                                                                                                                                                      genes etc
                                                                                                                                                                                                 ids that are overhang into expression,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   virucide;
                                                                                                                                                             dsRNA1
                                                                                                                       The invention relates to inhibiting expression of a target gene (I) in cell by introducing an inhibitory RNA (dsRNA1) having a double-strands structure of at most 49 consecutive bases. At least part of one stranc (as1) of dsRNA1 is complementary to (I) and at least one end of dsRNA1 has an overhang of 1-4 nucleotides. The method is used to inhibit the
                                                                                                                                                                                                                                                  that
                                                                                                                                                                                                                                                                                                                                      Gaps
                                                             the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Double stranded RNA; dsRNA; RNAi; RNA inhibition; cytostatic; virus protozoacide; gene expression; antisense; tumour; infection; Plasm virus; viroid; anti-GFP; human; HIV; human immunodeficiency virus; Hepatitis C virus; human papilloma virus; gene; ds.
                                                                                                                                                                   has an overhang of 1-4 nucleotides. The method is used to inhibit expression of a wide range of genes, e.g. oncogenes, cytokine gent in humans, also genes in Plasmodium or in viruses or viroids that pathogenic for humans, animals or plants. Introducing an overhang dsRNA greatly increases effectiveness for inhibiting gene expressiboth in vivo and in vitro and also increases stability and thus the effective concentration inside the cell. The present sequence is the gene related to the invention
                                            inhibiting
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  for treating
                                                                                                                                                                                                                                                                                                                                       0
                                                             complementary
                                                                                                                                                                                                                                                                                      U; 301 Other;
                                                                                                                                                                                                                                                                                                              Length 1653;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            are
                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            that
                                               e.g. for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  e.g.
RNAs
                                                                                                                                                                                                                                                                                                                                      ö
                                             Inhibiting expression of target gene, useful e.goncogenes, by administering double-stranded RNA target and having an overhang.
                                                                                                                                                                                                                                                                                                               . 9
                                                                                                                                                                                                                                                                                      C; 280 G; 374 T; 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 et genes, useful
double-stranded
                                                                                                                                                                                                                                                                                                             Score 19; DB 6,
Pred. No. 0.33;
0; Mismatches
Hadwiger
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hadwiger
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human MMP12 polynucleotide SEQ ID NO 101
                                                                                                 203pp; German.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  70; 100pp; German
                                                                                                                                                                                                                                                                                                                                                                                        343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  of target
                                                                                                                                                                                                                                                                                                                                                                19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                    вр
                                                                                                                                                                                                                                                                                                                                      ·;
 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Inhibiting expression of targe
by introducing into cells two
                                                                                                                                                                                                                                                                                      288
                                                                                                                                                                                                                                                                                                                                                              AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                    1653
  Rost
                                                                                                                                                                                                                                                                                                                100.08;
                                                                                                                                                                                                                                                                                                                         larity 100.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         09-JAN-2001; 2001DE-01000588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Rost
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2001DE-01000588
                                                                                                                                                                                                                                                                                       A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    standard; DNA;
S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                       Sequence 1653 BP; 410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (RIBO-) RIBOPHARMA AG
                                                                                                 Claim 10; Page 173;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Limmer
  Limmer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2002-683450/74
                         2002-590671/63
                                                                                                                                                                                                                                                                                                                          Similarity
19; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  13; Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         the target
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DE10100588-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                09-JAN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ĸ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    07-FEB-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  18-JUL-2002
Kreutzer R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABZ35793;
                                                                                                                                                                                                                                                                                                                                                                Н
                                                                                                                                                                                                                                                                                                                                                                                        361
                                                                                                                                                                                                                                                                                                                                                                                                                                                    ABZ35793
                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                           Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim
                                                                                                                                                                                                                                                                                                                          Best nor
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                        ABZ35793/c
                         WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Д
```

ò

ne in a cell II), both

a target gene (dsRNAI and II

expression of

invention relates to inhibiting expression of introducing at least two oligoribonucleotides

The δ

```
This invention describes a novel method for inhibiting expression of a target gene by introducing into the cell that contains the target gene at least one oligoribonucleotide (dsRNAI) that has a double-stranded (ds) structure of not more than 49 consecutive nucleotides (nt), where at least a segment of one strand of the ds structure is complementary with the target gene and the cells are treated with interferon before introduction of dsRNAI. The method is used to inhibit expression of target genes, particularly oncogenes, cytokine genes, Id (not defined) protein genes, developmental or prion genes, or genes expressed in protein genes, animals or plants). Treating the cells with interferon greatly increases the extent to which dsRNA can inhibit expression of the target genes, and the effect is even greater when dsRNA are modified to increase their stability. ABX09936-ABX10075 represent
                                                                                                                                                                                                                                                                                                                         ö
with a double-stranded (ds) structure of at most 49 sequential nucleotide pairs. At least part of one strand (S1, S2) of the ds structures in each of dsRNAI and II are complementary to regions in the target gene. The method uses antisense inhibition of gene expression using double stranded RNA inhibition (RNAi). The method is particularly used to treat tumours or infections, especially by Plasmodium or viruses/viroids (pathogenic on humans, animals or plants). The method provides more effective inhibition of expression than known methods using a single dsRNA, even at very low concentrations. When dsRNA has at least one unpaired nucleotide at the end, stability (and thus effective concentration in the cell) is improved and efficiency can be increased further by pretreating the cells with interferon. The present sequence is that of a target DNA of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           dsRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         after
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Oligoribonucleotide; interferon; oncogene; cytokine; Id; developmental; prion; inhibition; human; ds.
                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ρλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Inhibiting expression of target genes, e.g. oncogenes, in cells, b introduction of complementary double-stranded oligoribonucleotide, treating the cell with interferon.
                                                                                                                                                                                                                                                                                                                         ;
0
                                                                                                                                                                                                                                                Sequence 1653 BP; 410 A; 288 C; 280 G; 374 T; 0 U; 301 Other;
                                                                                                                                                                                                                                                                                   Length 1653;
                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                    ; 9
                                                                                                                                                                                                                                                                                    Score 19; DB 6
Pred. No. 0.33;
; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hadwiger
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure; Page 75; 98pp; German.
                                                                                                                                                                                                                                                                                                                                                                                 361 AATTATTGATTCTGTAGGT 343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ຜ
                                                                                                                                                                                                                                                                                                                                                              19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ВP
                                                                                                                                                                                                                                                                                                                            ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1653
                                                                                                                                                                                                                                                                                     100.0%;
                                                                                                                                                                                                                                                                                                                                                                AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2001DE-01000587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2001DE-01000587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Rost
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             fragment
                                                                                                                                                                                                                                                                                                       Similarity 100
19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ABX10036 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (RIBO-) RIBOPHARMA AG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2002-742209/81.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Limmer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human MMP12 DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DE10100587-C1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   09-JAN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        09-JAN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        23-JAN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Kreutzer R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                21-NOV-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ABX10036;
                                                                                                                                                                                                                                                                                       Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo
                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABX10036,
                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8 \times 8
                                                                                                                                                                                                                                                                                                                                                                                                  d
                                                                                                                                                                                                                                                                                                                                                                 ਨੇ
```

-

Page

Mon

RESULT

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The invention relates to a method for inhibiting expression of a target gene (ABL91658-ABL91797) in a cell by introducing at least one of a coligoribonucleotide that has a double-stranded structure consisting of at most 49 sequential nucleotide pairs, with at least part of one strand complementary with the target gene and has at least one end a single-stranded segment of 1-4 nt. The method provides oligoribonucleotides for antisense inhibition of gene expression useful e.g. for treating tumours but the oligoribonucleotides may also be directed against genes present in pathogens (e.g. Plasmodium or viruses/viroids, pathogenic on humans, animals or plants) or against cytokine, Id, developmental or prion genes. The method provides more effective inhibition of gene expression than use of known oligonucleotides, probably because the unpaired overhang increases stability and thus intracellular concentration
                                                                                                                                                                                                                                                                                                                                    pathogen;
leotide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 umors,
                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                   Human; HIV; HCV; gene expression; oligoribonucleotide; tumour;
Plasmodium; virus; viroid; cytokine; prion; antisense oligonucl
cytostatic; virucide; protozoacide; antibacterial; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              yene expression in cells, useful for e.g. treating t
double-stranded complementary oligoRNA having unpai
                                                                                    ö
illustrate the method of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Other;
                           0 U; 301 Other;
                                                       1653;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 1653;
                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 1653 BP; 410 A; 288 C; 280 G; 374 T; 0 U; 301
                                                         Length
                                                                                    ;
0
                                                       : 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0.33;
                           C; 280 G; 374 T;
                                                      Score 19; DB 6
Pred. No. 0.33;
); Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hadwiger
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 19;
Pred. No. (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         German.
                                                                                                                                                                                                                                                                                                        Human polynucleotide SEQ ID NO 101
                                                                                                                                             343
                                                                                                                19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŝ
                                                                                   ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%;
                                                        100.0%;
                            410 A; 288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Rost
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        74-75; 104pp;
                                                                                                                                  361 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  09-JAN-2001; 2001DE-01000586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              09-JAN-2001; 2001DE-01000586
                                                                                                                                                                                                                                                                              entry)
                                                                     Similarity 100 19; Conservative
                                                                                                                                                                                                                    standard; DNA;
 to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (RIBO-) RIBOPHARMA AG
                                                                                                                                                                                                                                                                            (first
gene fragments used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2002-270454/32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Limmer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
Matches 19; Conser
                            Sequence 1653 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 13; Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                introducing do
terminal bases
                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                          DE10100586-C1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ъ,
                                                                                                                                                                                                                                                                            28-MAY-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                      11-APR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Inhibiting
                                                                                                                                                                                                                                                  ABL91758;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Kreutzer
                                                                                                                                                                                                                    ABL91758
                                                        Query Match
Best Local
                                                                      Best Loc
Matches
                                                                                                                                                                                          RESULT
                                                                                                                                                                                                        ABL917
                                                                                                                                                                                                                                                              g
                                                                                                                  ઠ
```

```
The present invention describes a new composition comprising an antisense oligonucleotide (ON) with low adenosine (up to 15%), which targets nucleic acids involved in bronchoconstriction, allergies, and/or nucleic acids involved in bronchoconstriction, allergies, and/or antiasthmatic, cytostatic and analgesic activities. The compositions are useful for the treatment of diseases associated with inflammation, impaired airways, including lung disease and diseases whose secondary effects affiliat the lungs of a subject. They can be used for treating e.g. ischaemic conditions, pulmonary vasoconstriction, allergies, asthma, impeded respiration, respiratory distress syndrome, pain, cystic fibrosis, pulmonary hypertension, emphysema, chronic obstructive fibrosis, pulmonary hypertension, emphysema, chronic obstructive carcinomas, and cancers such as leukaemias, lymphomas, carcinomas, and cancers which may metastasise to the lungs, including breast and prostate cancer. The A-containing ONs break down with the one cancers which may metastasise to the lungs, including breast and prostate cancer. The A-containing ONs break down with the ownerhoornstriction and inflammation. AAA32313 to AAA35312 represent the nucleotide sequences given in the sequence listing from the present invention, which correspond to SEQ ID NO:1 to 2815, and then the last from the previously named sequences. SEQ ID No:1 to 1680 (AAA35323 to AAA3392) are specifically claimed ONs from the present invention do not match in the disclosure of the present invention do not match interest processing in the sequences given in the disclosure of the present invention do not match interest and processing of the present invention do not match interest and processing the present invention do not match interest and processing the present invention do not match interest and processing the present invention do not match interest and processing the present invention decomposition of the present invention decomposition of the present invention decomposition of the presen
                                                                                                                                                                                                                                                                                                                        asthma;
                                                                                                                                                                                                               Human; adenosine receptor; low adenosine antisense oligonucleotide; phosphorothioate; impaired respiration; inflammation; allergy; allergic disease; bronchoconstriction; inhibitor; antiinflammatory; antiallergic; antiasthmatic; cytostatic; analgesic; impaired airway. lung disease; ischaemic condition; pulmonary vasoconstriction; asthrespiratory distress syndrome; pain; cystic fibrosis; emphysema; pulmonary hypertension; chronic obstructive pulmonary disease; COPD, cancer; leukaemia; lymphoma; carcinoma; metastasis; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New antisense oligonucleotides useful for treating e.g. pulmonary vasoconstruction, inflammation, allergies, asthma, hypertension, bronchitis, emphysema, respiratory distress syndrome, ischemia or
                                                                                                                                                                     Human adenosine receptor related polynucleotide SEQ ID NO:2741.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     C; 337 G; 536 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Disclosure; Page 1016-1017; 1343pp; English
                        BP
                     1778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 1778 BP; 548 A; 357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99WO-US017712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98US-0095212P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EAST CAROLINA.
                                                                                                                           entry)
                        standard; DNA;
                                                                                                                        (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2000-205971/18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO200009525-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (UYEC-) UNIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        03-AUG-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         03-AUG-1998;
                                                                                                                          28-JUL-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      24-FEB-2000
                                                                        AAA35052;
                      AAA35052
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Nyce JW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cancers
AAA35052/c
```

Length 1778;

3;

19; No.

Score Pred.

100.0%;

Query Match Best Local Similarity

°;

Gaps

ö

Indels

ö

Mismatches

.; 0

Conservative

343

19

AATTATTGATTCTGTAGGT

Н

8

361 AATTATTGATTCTGTAGGT

a

0.33; DB

```
immunosuppressive, antiasthmatic, hypotensive and cytostatic activities.

The antisense oligonucleotides and (1) can be used to down-regulate the expression and or activity of target polypeptides associated with lung/respiratory disorders and malignancies, such as stimulating and activating peptide factors and transmitters, transcription factors, immunoglobulins and antibodies, antibody receptors, cytokines and chemokines, endogenously produced specific and non-specific enzymes, binding proteins, adhesion molecules and their receptors, cytokine and chemokine receptors, denosine receptors, bradykinin receptors, central nervous system (CNS) and peripheral nervous and non-nervous system peptide receptors, binding proteins and malignancy associated proteins. The ransmitters, defensins, growth factors, vasoactive peptides and contisense oligonucleotides may be used in this way to treat disorders including respiratory obstruction (especially pulmonary obstruction and/or bronchoconstriction) and/or lung inflammation, allergy (ies) and/or surfactant hypoproduction which are associated with a disease or condition selected from pulmonary vasoconstriction, inflammation,
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         and/or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      not trigger
                                                                                                                                                                                                                                                                                                                                                                                                                  rhinitis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              antisense ative base.
                                                                                                                                                                                                                                                                                                                                                                           respiratory obstruction; pulmonary obstruction; impeded respiration; surfactant hypoproduction; pulmonary vasoconstriction; asthma; RDS; respiratory distress syndrome; pain; cystic fibrosis; allergic rhinitis pulmonary hypertension; emphysema; pulmonary transplantation rejection; chronic obstructive pulmonary disease; pulmonary infection; bronchitis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cancers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  analgesic,
                                                                                                                                                                                                                                                                                                      Low adenosine antisense oligonucleotide; phosphorothioate; allergy; human; airway disorder; bronchoconstriction; lung inflammation; surfactant depletion; respiratory; bronchodilator; antiinflammatory; immunosuppressive; antiasthmatic; analgesic; hypotensive; cytostatic; respiratory obstruction; pulmonary obstruction; impeded respiration;
 Gaps
                                                                                                                                                                                                                                                                       #2741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              content antisense
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  adenosine receptors during metabolism, useful e.g. for treating and respiratory obstructions.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            oligonucleotides and compositions (I) comprising them. In the a oligonucleotides the A is replaced by a 'Universal' or alternat (I) can have respiratory, bronchodilator, antiinflammatory, ana
;
0
                                                                                                                                                                                                                                                                       Human low adenosine antisense oligonucleotide related sequence
  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               adenosine (A)
.;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure; Page 1094-1095; 1592pp; English
Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               invention describes low
                                                                      355
·;
                                     AATTATTGATTCTGTAGGT
                                                                     AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000WO-US008020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99US-0127958P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EAST CAROLINA.
J W.
                                                                                                                                                                                                                                      entry)
  Conservative
                                                                                                                                                               DNA;
                                                                                                                                                                                                                                    (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000-679539/66
                                                                                                                                                              standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO200062736-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NYCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     24-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             UNIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          06-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The present
                                                                                                                                                                                                                                     14-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  26-OCT-2000
19;
                                                                                                                                                                                                  AAF21174;
                                                                      373
                                                                                                                                           AAF21174/c
ID AAF21174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Nyce JW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (UYEC-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI;
  Matches
                                                                                                                            RESULT
                                                                                                                                                                                                  g
                                     ò
```

```
·.
                                                                                                                                                                                                                                                                                                                                               Growth factor; protein inhibitor; protease; damaged tissue; platelet-derived growth factor; PDGF; fibroblast growth factor; FGF; connective tissue derived growth factor; CTGF; chrysalin; VEGF; keratinocyte-derived growth factor; KGF; epidermal growth factor; EGF; transforming growth factor-beta; TGF-beta; matrix metalloproteinase; MMP; granulocyte macrophage colony stimulating factor; GM-CSF; uPA; vascular endothelial growth factor; urokinase plasminogen activator; dermal ulcer; wound; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     nds and
growth
                                                                o£
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The specification describes a pharmaceutical composition, comprising a growth factor, an inhibitor agent, i.e. a protease. The inhibitor agent inhibits the action of at least one specific adverse protein, i.e. a protease, that is upregulated in a damaged tissue such as a wound environment. Growth factors which are included in the composition of thinvention are platelet-derived growth factor (PDGF), fibroblast growth
allergies, asthma, impeded respiration, respiratory distress syndrome (RDS), pain, cystic fibrosis (CF), allergic rhinitis (AR), pulmonary hypertension, emphysema, chronic obstructive pulmonary disease (COPD), pulmonary transplantation rejection, pulmonary infections, bronchitis, and/or cancer. AAF18434 to AAF21543 represent human polynucleotide fragments and antisense oligonucleotides used in the exemplification of
                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   e. chronic wounds
protease and a gro
                                                                                                                                                  ·;
                                                                                                                          Length 1778;
                                                                                                   Other;
                                                                                                                                                   Indels
                                                                                                    u; o
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Occleston NL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ø
                                                                                                                                                                                                                                                                                                                                     of matrix metalloproteinase-12.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ·H d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    aged tissue
agent i.e.
                                                                                                                                                   ö
                                                                                                    0
                                                                                                                             3,
                                                                                                  Τ;
                                                                                                                           Score 19; DB 3
Pred. No. 0.33;
Mismatches
                                                                                                     536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      int of damaged
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     English
                                                                                                   .;
G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mcintosh FS,
                                                                                                    C; 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
13. .1425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "MMP-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      572pp;
                                                                                                                                                                                                    355
                                                                                                                                                                                                                                                               BP
                                                                                                                                                                            19
                                                                                                                                                    ;
0
                                                                                                                                                                                                                                                             1778
                                                                                                                           100.0%;
ilarity 100.0%;
Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          treatment
                                                                                                                                                                                             373 AATTATTGATTCTGTAGGT
                                                                                                     357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000WO-IB001935
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99GB-00030768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            13. .1425
/*tag= a
/product=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      560-561;
                                                                                                                                                                                                                                                                                                                entry)
                                                                                                     548 A;
                                                                                                                                                                                                                                                               CDNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  comprises
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JP,
                                                                             invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Composition for the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Huggins
                                                                                                                                                                                                                                                                                                                                     Nucleotide sequence
                                                                                                                                                                                                                                                                                                              (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2001-418351/44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PFIZER LTD
PFIZER INC
                                                                                                                                                                                                                                                               AAH28229 standard;
                                                                                                                                       Similarity
19; Conser
                                                                                                    1778 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Disclosure; Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAB84614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO200149309-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ulcers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         21-DEC-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   29-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   12-JUL-2001.
                                                                             the present
                                                                                                                                                                                                                                                                                                              05-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MJ,
                                                                                                      Sequence
                                                                                                                                                                             Н
                                                                                                                             Query Match
Best Local
                                                                                                                                                                                                                                                                                       AAH28229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Davies
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    dermal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                factor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (PFIZ
(PFIZ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo
                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI
                                                                                                                                                                                                                                                    AAH28229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Key
                                                                                                                                                                                                                                       RESULT
                                                                                                                                                                                                                                                                                      88899999888
                                                                                                                                                                                                    g
                                                                                                                                                                              ð
```

S

```
Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABL65817/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ઠે
                                                                                                                                                                                      ö
                h factor-beta
(GM-CSF),
actor (VEGF),
ion of the
                                                                                                                                                                                                                                                                                                                                                                                              oesophagus; kidney; thyroid;
ircinoma; antitumour; cancerous;
stic; Wilm's tumour; adenocarcinoma;
factor (FGF), connective tissue derived growth factor (CTGF), keratinocyte-derived growth factor (KGF), transforming growth factor-bet (TGF-beta), granulocyte macrophage colony stimulating factor (GM-CSF), epidermal growth factor (EGF), vascular endothelial growth factor (VEGF) and chrysalin. Inhibitors which are included in the composition of the invention include inhibitors of urokinase-type plasminogen activator (uPA) and matrix metalloproteinase (MMP). The composition is useful for the treatment of chronic damaged tissue, i.e. wounds and dermal ulcers. The present sequence encodes a human MMP-12, and is used to produce the
                                                                                                                                                                                       Gape
                                                                                                                                                                                      ö
                                                                                                                                                             Length 1778;
                                                                                                                                     0 Other;
                                                                                                                                                                                                                                                                                                                                                                        adenocarcinoma related gene sequence SEQ ID NO:1001
                                                                                                                                                                                                                                                                                                                                                                                             ncer; colon; breast; ovary; oesophagus; kidney; lung; prostate; pancreas; carcinoma; antitumour; c; gene therapy; antineoplastic; Wilm's tumour;
                                                                                                                                                                                      Indels
                                                                                                                                      0 U;
                                                                                                                                                                                     .;
0
                                                                                                                                                               4;
                                                                                                                                    Ţ;
                                                                                                                                                              Score 19; DB 4
Pred. No. 0.33;
); Mismatches
                                                                                                                                       536
                                                                                                                                      :
:
                                                                                                                                       C; 337
                                                                                                                                                                                                                                       355
                                                                                                                                                                                                               19
                                                                                                                                                                                                                                                                                                 BP
                                                                                                                                                                                      ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2000US-0209473P.
2000US-0233133P.
2000US-0233133P.
2000US-0234009P.
2000US-0234034P.
2000US-0234509P.
2000US-0234509P.
2000US-0234509P.
2000US-0234567P.
2000US-0234567P.
2000US-0234567P.
2000US-0234567P.
2000US-023563P.
2000US-0235603P.
2000US-0236033P.
2000US-0236033P.
2000US-0236034P.
2000US-0236034P.
2000US-0236034P.
2000US-0236034P.
2000US-0236111P.
                                                                                                                                                                                                                                                                                                1778
                                                                                                                                                               100.0%;
100.0%;
                                                                                                                                       A; 357
                                                                                                                                                                                                                                       AATTATTGATTCTGTAGGT
                                                                                                    The present sequence encodes composition of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   001WO-US010838
                                                                                                                                                                                                                                                                                                                                                  entry)
                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                   standard; DNA;
                                                                                                                                        548
                                                                                                                                                                          Similarity 19; Conser
                                                                                                                                       Sequence 1778 BP;
                                                                                                                                                                                                                                                                                                                                                                                         cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO200194629-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        05-JUN-2000;

18-SEP-2000;

18-SEP-2000;

20-SEP-2000;

20-SEP-2000;

20-SEP-2000;

22-SEP-2000;

22-SEP-2000;

25-SEP-2000;

26-SEP-2000;

26-SEP-2000;

28-SEP-2000;

27-SEP-2000;

28-SEP-2000;

28-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  30-MAY-2001
                                                                                                                                                                                                                                                                                                                                                                                                                       cytostatic;
                                                                                                                                                                                                                                                                                                                                                  5-MAY-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            13-DEC-2001
                                                                                                                                                                                                                                                                                                                           ABL62664;
                                                                                                                                                                                                                                       373
                                                                                                                                                                                                                                                                                                                                                                                                            stomach;
                                                                                                                                                               Query Match
Best Local
                                                                                                                                                                                                                                                                                                 ABL62664
                                                                                                                                                                                                                                                                                                                                                                                                   Human;
                                                                                                                                                                                                                                                                                                                                                                          Colon
                                                                                                                                                                                                                                                                                                                                                                                                                                       dene;
                                                                                                                                                                                                                                                                                       ABL62664/c
                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                            16
                                                                                                                                                                                                                                                                          RESULT
                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                       d
d
```

.. 0

Gaps

ö

Indels

ő

Length 1778

DB 6;

0.33;

Score 19; DB Pred. No. 0.3 ); Mismatches

ilarity 100.0%; Conservative 0

ö

σ

H

AATTATTGATTCTGTAGGT

ന

373 AATTATTGATTCTGTAGGT

Human; cancer; colon; breast; ovary; oesophagus; kidney; thyroid;
stomach; lung; prostate; pancreas; carcinoma; antitumour; cancerous;
cytostatic; gene therapy; antineoplastic; Wilm's tumour; adenocarcinoma;

Homo sapiens.

gene;

ID NO:4154.

gene sequence SEQ

related

Lung cancer

entry)

(first

5-MAY-2002

ABL65817;

ВР

1778

standard; DNA;

**ABL65817** 

17

```
The present invention describes a method (M1) for screening for an antineoplastic agent. The method involves exposing cells to a chemical agent to be tested for anti-neoplastic activity, determining a change in expression of at least one gene (I) of a signature gene set, where (I) comprises a sequence (S) selected from 847 sequences (given in ABL61664 to ABL70110), or is at least 95% identical to (S), where a change in expression is indicative of anti-neoplastic activity. (I) has cytostatic activity and can be used in gene therapy. M1 can be used for screening an anti-neoplastic agent, and can be used for producing a product which is the data collected with respect to the anti-neoplastic agent as a result of M1, and the data is sufficient to convey the chemical structure and/or properties of the agent. M1 can be used in the treatment of cancer such as colon, breast, stomach, lung, thyroid, oesophageal, ovarian, kidney, prostate or pancreatic cancer, adenocarcinoma, carcinoma, clear cell cancer, infiltrating ductal cancer, infiltrating lobular cancer, squamous cell cancinoma, neuroendocrine carcinoma, papillary carcinoma and Wilm's
                                                                                                                                                                                                                                                                                                                                                            chemical
a change
                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                 Horrigan
                                                                                                                                                                                                                                                                                                                                                              r anti-neoplastic agent involves exposing cells to a tested for anti-neoplastic activity, and determining n of a gene of a signature gene set.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0 U; 0 Other;
                                                                                                                                                                                                                                                                               Ö
                                                                                                                                                                                                                                                                                 Endress
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               548 A; 357 C; 337 G; 536 T;
                                                                                                                                                                                                                                                                               ď
                                                                                                                                                                                                                                                                                  Ebner
                                                                                                                                                                                                                                                                                                                                                                                                                                 English
                                                                                                                                                                                                                                                                               Carter KC,
                                                                                                                                                                                                                                                                                                                                                                                                                                 1001; 44pp;
2000US-0236891P.
2000US-0237172P.
2000US-0237173P.
2000US-0237278P.
2000US-0237294P.
2000US-0237295P.
2000US-0237316P.
2000US-0237425P.
2000US-0237604P.
2000US-0237604P.
2000US-0237606P.
2000US-0237608P.
2000US-0237608P.
                                                                                                                                                                                                                                                                                Augustus M,
                                                                                                                                                                                                                                                                                                   7
                                                                                                                                                                                                                                                  (AVAL-) AVALON PHARM
                                                                                                                                                                                                                                                                                                                                2002-188264/24
                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 1; SEQ ID NO
                                                                                                                                                                                                                                                                                                   Weaver
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 1778 BP;
                                                                                                                                                                                                                                                                                                                                                                 Screening for agent to be te
                                                                                                                                                                                                                                                                                                                                                                                                  in expression
29-SEP-2000;
02-OCT-2000;
02-OCT-2000;
02-OCT-2000;
02-OCT-2000;
02-OCT-2000;
03-OCT-2000;
03-OCT-2000;
03-OCT-2000;
03-OCT-2000;
03-OCT-2000;
03-OCT-2000;
03-OCT-2000;
03-OCT-2000;
                                                                                                                                                                                                                                                                               Young PE,
Soppet DR,
                                                                                                                                                                                                                                                                                                                                 WPI;
```

```
tumour
                                                                                                                                                                         Ü
                                                                                                                                                                                                                                                                             gene;
                                                                                                                                                                                                                                   Lung
                                                                                                                                                                                                                                                                                               Homo
                                           cell
                                                                                                    Matches
                                                                                                                                                               RESULT 18
ABL64743/
                                                                                            Best
886666666
                                                                                                                                                                                       d
                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            chemical
a change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The present invention describes a method (M1) for screening for an antineoplastic agent. The method involves exposing cells to a chemical agent to be tested for anti-neoplastic activity, determining a change in expression of at least one gene (I) of a signature gene set, where (I) comprises a sequence (S) selected from 8447 sequences (given in ABL61664 to ABL70110), or is at least 95% identical to (S), where a change in expression is indicative of anti-neoplastic activity. (I) has cytostatic activity and can be used in gene therapy. M1 can be used for screening an anti-neoplastic agent, and can be used for producing a product which is the data collected with respect to the anti-neoplastic agent as a result
                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                     gan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           r anti-neoplastic agent involves exposing cells to tested for anti-neoplastic activity, and determining n of a gene of a signature gene set.
                                                                                                                                                                                                                                                                                                                                                                                                                                                    છે
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Endress
                                                                                                                                                                                                                                                                                                                                                                                                                                                    ĸ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               44pp;
                                                       2000US-0209531P.
2000US-0233133P.
2000US-0233617P.
2000US-0234034P.
2000US-0234034P.
2000US-0234650P.
2000US-0234924P.
2000US-0234924P.
2000US-0234924P.
2000US-0234924P.
2000US-0234924P.
2000US-0234924P.
2000US-023563P.
2000US-023563P.
2000US-023563P.
2000US-023563P.
2000US-023563P.
2000US-023563P.
2000US-023563P.
2000US-023603P.
2000US-023603P.
2000US-023603P.
2000US-023603P.
2000US-023603P.
2000US-023603P.
2000US-023603P.
2000US-0236111P.
2000US-0237113P.
2000US-0237173P.
2000US-0237173P.
2000US-0237173P.
2000US-0237173P.
2000US-0237173P.
2000US-0237173P.
2000US-0237295P.
2000US-0237295P.
2000US-0237405P.
2000US-0237604P.
2000US-0237604P.
2000US-0237604P.
                                         2001WO-US01083
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4154;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ζ,
                                                                                                                                                                                                                                                                                                                                                                                                                                  AVALON PHARM
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Augustus
Weaver Z
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2002-188264/24.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ID NO
        WO200194629-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              expression
                                                        05-JUN-2000;

18-SEP-2000;

20-SEP-2000;

20-SEP-2000;

20-SEP-2000;

22-SEP-2000;

22-SEP-2000;

25-SEP-2000;

25-SEP-2000;

25-SEP-2000;

25-SEP-2000;

25-SEP-2000;

27-SEP-2000;

27-SEP-2000;

27-SEP-2000;

28-SEP-2000;

27-SEP-2000;

28-SEP-2000;

27-SEP-2000;

28-SEP-2000;

27-SEP-2000;

27-SEP-2000;

27-SEP-2000;

27-SEP-2000;

27-SEP-2000;

27-SEP-2000;

27-SEP-2000;

27-SEP-2000;

28-SEP-2000;

28-SEP-2000;

29-SEP-2000;

29-SEP-2000;

29-SEP-2000;

20-OCT-2000;

20-OCT-2000;

21-NOV-2000;

21-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     to be
                                         30-MAY-2001
                        13-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                            DR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            creening
                                                                                                                                                                                                                                                                                                                                                                                                                                                    PE
                                                                                                                                                                                                                                                                                                                                                                                                                                   (AVAL-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ч
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Young E
Soppet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    agent
in exp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI;
```

```
ö
                                                                      squamous
                                                                                        Ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human; cancer; colon; breast; ovary; oesophagus; kidney; thyroid;
stomach; lung; prostate; pancreas; carcinoma; antitumour; cancerous;
cytostatic; gene therapy; antineoplastic; Wilm's tumour; adenocarcinoma;
and the data is sufficient to convey the chemical structure and/eles of the agent. MI can be used in the treatment of cancer such of breast, stomach, lung, thyroid, oesophageal, ovarian, kidney, or pancreatic cancer, adenocarcinoma, carcinoma, clear cell infiltrating ductal cancer, infiltrating lobular cancer, squamoreinoma, neuroendocrine carcinoma, papillary carcinoma and Wilm's
                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                          ö
                                                                                                                                                                        Length 1778
                                                                                                                                      C; 337 G; 536 T; 0 U; 0 Other;
                                                                                                                                                                                                            Indels
                                                                                                                                                                                                          ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sequence SEQ ID NO:3080
                                                                                                                                                                         9
                                                                                                                                                                     19; DB 6;
No. 0.33;
                                                                                                                                                                                                          Mismatches
                                                                                                                                                                          Score
                                                                                                                                                                                           Pred.
                                                                                                                                                                                                                                           19
                                                                                                                                                                                                                                                                                                                                                                  BP
                                                                                                                                                                                                                                                                               35
                                                                                                                                                                                                          ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000US-0209473P.
2000US-0233133P.
2000US-0233617P.
2000US-0234034P.
2000US-0234034P.
2000US-0234567P.
2000US-0234923P.
2000US-0234924P.
2000US-0234924P.
2000US-0235082P.
2000US-0235082P.
2000US-023508P.
2000US-023503P.
2000US-0236034P.
2000US-0236034P.
2000US-0236034P.
2000US-0236034P.
2000US-0236034P.
2000US-0236111P.
2000US-0236111P.
2000US-0236111P.
2000US-0236111P.
2000US-0236111P.
                                                                                                                                       Sequence 1778 BP; 548 A; 357
                                                                                                                                                                                                                                             AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                              100.0%;
                                                                                                                                                                                                                                                                                                                                                                 ABL64743 standard; DNA; 1778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2001WO-US010838
                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gene
                                                                                                                                                                                          Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      related
                                   as colon, breast,
                                                                                       carcinoma,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO200194629-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20-SEP-2000;

20-SEP-2000;

20-SEP-2000;

22-SEP-2000;

22-SEP-2000;

25-SEP-2000;

25-SEP-2000;

25-SEP-2000;

25-SEP-2000;

25-SEP-2000;

25-SEP-2000;

25-SEP-2000;

27-SEP-2000;

27-SEP-2000;

27-SEP-2000;

27-SEP-2000;

27-SEP-2000;

28-SEP-2000;

29-SEP-2000;

28-SEP-2000;

29-SEP-2000;

28-SEP-2000;

29-SEP-2000;

29-SEP-2000;

29-SEP-2000;

29-SEP-2000;

29-SEP-2000;

29-SEP-2000;

29-SEP-2000;

29-SEP-2000;

29-SEP-2000;

20-OCT-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                05-JUN-2000;
05-JUN-2000;
18-SEP-2000;
18-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30-MAY-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cancer
 of M1, and properties
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              13-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                     15-MAY-2002
                                                                                                                                                                                                                                              Н
                                                    prostate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             dB
                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                   ABL64743
                                                                    cancer,
                                                                                                                                                                                          Local
```

· rng

```
05-JUN-2000;

18-SEP-2000;

20-SEP-2000;

20-SEP-2000;

22-SEP-2000;

22-SEP-2000;

22-SEP-2000;

25-SEP-2000;

25-SEP-2000;

25-SEP-2000;

25-SEP-2000;

25-SEP-2000;

25-SEP-2000;

25-SEP-2000;

25-SEP-2000;

27-SEP-2000;

27-SEP-2000;

27-SEP-2000;

27-SEP-2000;

28-SEP-2000;

28-SEP-2000;

29-SEP-2000;

29-SEP-2000;

29-SEP-2000;

20-OCT-2000;

02-OCT-2000;

03-OCT-2000;

03-OCT-2000;

03-OCT-2000;

03-OCT-2000;

03-OCT-2000;

03-OCT-2000;

03-OCT-2000;
                     30-MAY-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                     03-OCT-2000;
01-NOV-2000;
01-NOV-2000;
 13-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Young PE,
Soppet DR,
 The present invention describes a method (M1) for screening for an antineoplastic agent. The method involves exposing cells to a chemical agent to be tested for anti-neoplastic activity, determining a change in expression of at least one gene (I) of a signature gene set, where (I) comprises a sequence (S) selected from 8447 sequences (given in ABL61664 to ABL70110), or is at least 95% identical to (S), where a change in expression is indicative of anti-neoplastic activity. (I) has cytostatic activity and can be used in gene therapy. M1 can be used for screening an anti-neoplastic agent, and can be used for producing a product which is the data collected with respect to the anti-neoplastic agent as a result of M1, and the data is sufficient to convey the chemical structure and/or properties of the agent. M1 can be used in the treatment of cancer such as colon, breast, stomach, lung, thyroid, oesophageal, ovarian, kidney, prostate or pancreatic cancer, adenocarcinoma, carcinoma, clear cell cancer, infiltrating ductal cancer, infiltrating lobular cancer, squamous cell carcinoma, neuroendocrine carcinoma, papillary carcinoma and Wilm's
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                   chemical
a change
                                                                                                                                                                                                                                                                                                                                         an
                                                                                                                                                                                                                                                                                                                                                                       or'
                                                                                                                                                                                                                                                                                                                                                                                                               r, squamous and Wilm's
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; cancerous; adenocarcinoma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                  gan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human; cancer; colon; breast; ovary; oesophagus; kidney; thyroid;
stomach; lung; prostate; pancreas; carcinoma; antitumour; cancero
cytostatic; gene therapy; antineoplastic; Wilm's tumour; adenocar
                                                                                                                                                                                                    ھ <u>ت</u>
                                                                                                                                                                                                  Screening for anti-neoplastic agent involves exposing cells to agent to be tested for anti-neoplastic activity, and determinin in expression of a gene of a signature gene set.
                                                                                                                                                 Horri
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 1778;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Colon adenocarcinoma related gene sequence SEQ ID NO:439.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                Ö
                                                                                                                                                 Endress
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 1778 BP; 548 A; 357 C; 337 G; 536 T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 19; DB 6
Pred. No. 0.33;
                                                                                                                                                 ᇝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                Ebner
                                                                                                                                                                                                                                            Claim 1; SEQ ID NO 3080; 44pp; English.
                                                                                                                                               Carter KC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ВР
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ·;
2000US-0237278P.
2000US-0237294P.
2000US-0237295P.
2000US-0237316P.
2000US-0237425P.
2000US-0237604P.
2000US-0237604P.
2000US-0237608P.
2000US-0237608P.
2000US-0237608P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             standard; DNA; 1778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                Augustus M,
                                                                                                                                                           Weaver Z;
                                                                                                                            (AVAL-) AVALON PHARM.
                                                                                                                                                                               WPI; 2002-188264/24.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity 19; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO200194629-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens.
02-OCT-2000;
02-OCT-2000;
02-OCT-2000;
03-OCT-2000;
03-OCT-2000;
03-OCT-2000;
03-OCT-2000;
03-OCT-2000;
03-OCT-2000;
01-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       15-MAY-2002
                                                                                                                                                         Soppet DR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2102/c
ABL62102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              dB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ABL62102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               gene;
                                                                                                                                                  Young
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 19
ABL62102/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                П
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          D
D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
```

```
chemical
a change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The present invention describes a method (M1) for screening for an antineoplastic agent. The method involves exposing cells to a chemical agent to be tested for anti-neoplastic activity, determining a change in expression of at least one gene (I) of a signature gene set, where (I) comprises a sequence (S) selected from 8447 sequences (given in ABL61664 to ABL70110), or is at least 95% identical to (S), where a change in expression is indicative of anti-neoplastic activity. (I) has cytostatic activity and can be used in gene therapy. M1 can be used for screening an anti-neoplastic agent, and can be used for producing a product which is the data collected with respect to the anti-neoplastic agent as a result of M1, and the data is sufficient to convey the chemical structure and/or properties of the agent. M1 can be used in the treatment of cancer such as colon, breast, stomach, lung, thyroid, oesophageal, ovarian, kidney,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Horrigan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         determining
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         involves exposing ic activity, and cure gene set.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Endress
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ᇝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ebner
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Screening for anti-neoplastic agent invagent to be tested for anti-neoplastic in expression of a gene of a signature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       439; 44pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Carter KC,
                                     2000US-0209473P.
2000US-0233133P.
2000US-0233617P.
2000US-0234009P.
2000US-0234034P.
2000US-023450P.
2000US-023450P.
2000US-0234923P.
2000US-0234924P.
2000US-0234924P.
2000US-023563P.
2000US-023563P.
2000US-023563P.
2000US-023563P.
2000US-023563P.
2000US-023563P.
2000US-023563P.
2000US-023563P.
2000US-023563P.
2000US-023603P.
2000US-023603P.
2000US-023603P.
2000US-023603P.
2000US-023603P.
2000US-023603P.
2000US-023603P.
2000US-023603P.
2000US-02377172P.
2000US-0237173P.
2000US-0237173P.
2000US-0237298P.
2000US-0237298P.
2000US-0237425P.
2000US-0237604P.
2000US-0237608P.
2000US-0237608P.
2000US-0237608P.
2001WO-US01083
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Augustus M,
Weaver Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (AVAL-) AVALON PHARM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2002-188264/24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 1; SEQ ID NO
```

S

. rng

-5

-10-619-01-

an

12

```
02-OCT-2001;
                                               01-NOV-2000;
01-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                       13-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        11-APR-2002
                                                                               PE,
t DR,
                                                                                                                                                                                                                                                                                                                                                                                                                     #2179
                                                                                                                                                                                                                                                                                                                                                                    ABN95681/c
ID ABN95681
                                                                                                                                                                                                                                                                                                                                                                                          ABN95681;
                                                                                                                                                                                                                                                                                                                                          373
                                                                                                                                                                                                                                                                                                  Query Match
Best Local
                                                                   (AVAL-)
                                                                                        Soppet
                                                                                                                                                                                                                                                                        tumour
                                                                                 Young
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo
                                                                                                                                                                                                                                                                                                         Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                     Gene
                                                                                                                                                                                                                                                                                                                                                               RESULT
                                                                                                                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                                              ਨੇ
                                                                   ö
                                                                                                                                                                                     thyroid;
; cancerous;
adenocarcinoma;
              , squamous
nd Wilm's
                                                                    Gaps
       , clear
                      ø
                                                                   ö
                     carcinoma
                                                      1778
                                         Other;
                                                                                                                                                                                      Human; cancer; colon; breast; ovary; oesophagus; kidney; t
stomach; lung; prostate; pancreas; carcinoma; antitumour;
cytostatic; gene therapy; antineoplastic; Wilm's tumour; a
prostate or pancreatic cancer, adenocarcinoma, carcinoma, cancer, infiltrating lobular cell carcinoma, neuroendocrine carcinoma, papillary carcinoma,
                                                                    Indels
                                                      Length
                                         0
                                         u;
                                                                    ·,
                                                                                                                                                                         SEQ ID NO:4826
                                         0
                                                             .33;
                                        Ħ
                                                      9
                                                      DB
                                                      Score 19; DB
Pred. No. 0.3
; Mismatches
                                         536
                                         .<u>;</u>
                                         337
                                                                                                                                                                          sequence
                                         ΰ
                                                                                 19
                                                                                               35
                                                                   .;
0
                                                                                                                                 m
                                                                                                                                                                                                                                                                            2000US-0209473P.
2000US-0233133P.
2000US-0234034P.
2000US-0234034P.
2000US-0234034P.
2000US-0234567P.
2000US-0234567P.
2000US-0234567P.
2000US-0234567P.
2000US-02358P.
2000US-0236034P.
2000US-0236034P.
2000US-0236111P.
2000US-0236111P.
2000US-0236111P.
2000US-0236111P.
2000US-023613P.
2000US-02368P.
2000US-023613P.
2000US-02368P.
2000US-023613P.
2000US-0237173P.
2000US-0237173P.
2000US-0237278P.
                                                                                                                                 1778
                                                                                  AATTATTGATTCTGTAGGT
                                         357
                                                                                        100.0%;
ilarity 100.0%;
Conservative
                                                                                                                                                                                                                                                                  2001WO-US01083
                                                                                                                                                             entry)
                                                                                                                                                                          gene
                                          Ą;
                                                                                                                                standard; DNA;
                                         548
                                                                                                                                                                         related
                                                                                                                                                            (first
                                                             Similarity 19; Conser
                                         BP;
                                                                                                                                                                                                                                       WO200194629-A2
                                         1778
                                                                                                                                                                                                                                                                                    18-SEP-2000;

18-SEP-2000;

20-SEP-2000;

20-SEP-2000;

20-SEP-2000;

22-SEP-2000;

22-SEP-2000;

25-SEP-2000;

25-SEP-2000;

25-SEP-2000;

25-SEP-2000;

25-SEP-2000;

25-SEP-2000;

27-SEP-2000;

27-SEP-2000;

27-SEP-2000;

27-SEP-2000;

28-SEP-2000;

27-SEP-2000;

28-SEP-2000;

28-SEP-2000;

29-SEP-2000;

29-SEP-2000;

29-SEP-2000;

29-SEP-2000;

29-SEP-2000;

20-0CT-2000;

02-OCT-2000;

02-OCT-2000;
                                                                                                                                                                                                                                                                 7-2001;
                                                                                                                                                                                                                         sapiens
                                                                                                                                                                          cancer
                                                                                                                                                            5-MAY-2002
                                                                                                                                                                                                                                                    13-DEC-2001
                                                                                                                   LT 20
5489/c
ABL66489
                                         Sequence
                                                                                                373
                                                                                                                                               ABL66489
                                                       Match
                                                       Query Match
Best Local
Matches 1
                                                                                                                                                                                                                                                                  -MAY
                                                                                                                                                                                                            ene;
                                                                                                                                                                          Lung
                                                                                                                                                                                                                          Homo
                                                                                                                                                                                                                                                                  Ó
                                                                                                                   a
                                                                                  ठे
```

```
The present invention describes a method (M1) for screening for an antinoplastic agent. The method involves exposing cells to a chemical agent to be tested for anti-neoplastic activity, determining a change in expression of at least one gene (I) of a signature gene set, where (I) comprises a sequence (S) selected from 847 sequences (given in ABL61664 to ABL70110), or is at least 95% identical to (S), where a change in expression is indicative of anti-neoplastic activity. (I) has cytostatic activity and can be used in gene therapy. M1 can be used for screening an anti-neoplastic agent, and can be used for producing a product which is the data collected with respect to the anti-neoplastic agent as a result of M1, and the data is sufficient to convey the chemical structure and/or properties of the agent. M1 can be used in the treatment of cancer such as colon, breast, stomach, lung, thyroid, oesophageal, ovarian, kidney, prostate or pancreatic cancer, adenocarcinoma, carcinoma, clear cell cancer, infiltrating ductal cancer, infiltrating lobular cancer, squamous cell carcinoma, neuroendocrine carcinoma, papillary carcinoma and Wilm's
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;
0
                                                                                                                                                                                                                                                                                                                                                                             chemical
a change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              state;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gene; liver cancer; ds; hepatocellular carcinoma; hepatotropic; metastatic liver tumour; cytostatic; expression profile; disease st disease progression; drug toxicity; drug efficacy; drug metabolism
                                                                                                                                                                                                                                                            Horrigan
                                                                                                                                                                                                                                                                                                                                                                                 cells to a determining
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 6; Length 1778;
                                                                                                                                                                                                                                                                                                                                                                                cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 1778 BP; 548 A; 357 C; 337 G; 536 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                               Ö
                                                                                                                                                                                                                                                                                                                                                                             plastic agent involves exposing anti-neoplastic activity, and cof a signature gene set.
                                                                                                                                                                                                                                                               Endress
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 19; DB 6;
Pred. No. 0.33;
); Mismatches
                                                                                                                                                                                                                                                               Ebner R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              44pp; English.
                                                                                                                                                                                                                                                               Carter KC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        diagnose liver
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ŋ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ;
0
                                                                                                                                                                                                                                                                                                                                                                             Screening for anti-neoplastic agent to be tested for anti-ne in expression of a gene of a s
2000US-0237316P.
2000US-0237425P.
2000US-0237598P.
2000US-0237604P.
2000US-0237606P.
2000US-0237608P.
2000US-0244867P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  th 100.0%; Similarity 100.0%; 19; Conservative C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            standard; DNA; 1778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2001WO-US030589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4826;
                                                                                                                                                                                                                                                               Σ
                                                                                                                                                                                                                                                                                   2;
                                                                                                                                                                                                                   AVALON PHARM
                                                                                                                                                                                                                                                                                                                                   WPI; 2002-188264/24.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first
                                                                                                                                                                                                                                                                  Augustus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 1; SEQ ID NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                to
                                                                                                                                                                                                                                                                                       Weaver
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO200229103-A2
 02-OCT-2000;
03-OCT-2000;
03-OCT-2000;
03-OCT-2000;
03-OCT-2000;
01-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          sapiens
```

Mon

```
The present invention associated transcript
pharmaceutical
                             Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            03-JUL-2001;
03-AUG-2001;
08-NOV-2001;
13-NOV-2001;
12-APR-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           03-JUL-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        16-JAN-2003
                                                                                                                                                                                                                                                                                                                                                                         12-JUN-2003
                                                                                                                                                                                                                                            19
                                                                                                                                                                                                                                                                                                                                                      ACC51017;
                                                                                                                                                                                                                        Query Match
Best Local S
Matches 19
                            1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mack DH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (EOSB-)
         cancers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim
                            Claim
                                                                                                                                                                                                                                                                                                                RESULT 23
ACC51017/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The
                                                                                                                                                                                                                                                                                                                                                     a
a
                                                                                                                                                                                                                                                                 ઠ
                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                   ecting the
static liver
er from
                                                                                                                                                                                                                                  disease progression,
                                                                                                                                                                                             letecting
metastatic
                                                                          of liver cancer, hepatocellular patient, involves detecting the in a liver tissue sample.
                                                                                                                                                                 of
                                                                                                                                                                                                                            aB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              useful
                                                                                                                                                                          in a
                                                                                                                                                                                                                        s well
                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                 level
                                                                                                                                                                                                                 ying
                                                                                                                                 The invention relates to a novel method for diagnosing and detectic progression of liver cancer, hepatocellular carcinoma or metastatic tumour in a patient, and differentiating metastatic liver cancer featocellular carcinoma in a patient, involving detecting the levexpression of two or more genes represented in ABN93503-ABN97455 it issue sample. The method of the invention has hepatotropic, and cytostatic activity. The method is useful for diagnosing and detect the progression of liver cancer, hepatocellular carcinoma and metaliver carcinoma in a patient. The method is useful for identifying expression profiles which serve as useful diagnostic markers as we markers that can be used to monitor disease states, disease progrefor this patent did not form part of the printed specification, but obtained in electronic format directly from WIPO at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Novel polynucleotide encoding head and neck tumor polypeptides
                                                                                                                                                                                                                                                                                                                                    ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human; head and neck cancer; tumour; cytostatic; immunogenic;
                                                                                                                                                                                                                                                                                                                Length 1778;
                                                                                                                                                                                                                                                                                               Sequence 1778 BP; 548 A; 357 C; 337 G; 536 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                     ö
                                       Vockley
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   218
                                                                                                                                                                                                                                                                                                                100.0%; Score 19; DB 6, 100.0%; Pred. No. 0.33; iive 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human head and neck tumour cDNA, SEQ ID No
                                                                           Diagnosing and detecting the progression carcinoma or metastatic liver tumor in a level of expression of two or more genes
                                                                                                                                                                                                                                                                           ftp.wipo.int/pub/published_pct_sequences
                                                                                                                 SEQ ID NO 2179; 298pp; English.
                                       S
                                      Peres-Da-Silva
                                                                                                                                                                                                                                                                                                                                                                           355
                                                                                                                                                                                                                                                                                                                                                       19
                                                                                                                                                                                                                                                                                                                                    ;
                                                                                                                                                                                                                                                                                                                                                                 373 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2000US-0223281P
2000US-0249933P
                                                                                                                                                                                                                                                                                                                                                         AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2001WO-US024226
 02-OCT-2000; 2000US-0237054P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 entry)
                                                                                                                                                                                                                                                                                                                                                                                                                          standard; cDNA;
                                                                                                                                                                                                                                                                                                                                     Conservative
                    GENE LOGIC INC
                                       ບັ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2002-257467/30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CORIXA CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first
                                                        WPI; 2002-426119/45
                                                                                                                                                                                                                                                                                                                          | Similarity
19; Conser
                                       Alvares
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            P-PSDB; AAU91061
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO200212329-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               03-AUG-2000;
16-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-AUG-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        14-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                05-JUN-2002
                                                                                                                                                                                                                                                                                                                 Query Match
Best Local S
Matches 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 88
                                                                                                                                                                                                                                                                                                                                                                                                               ABK54023/c
ID ABK54023
                                                                                                                 Claim 1;
                                      Ď,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (CORI-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Į,
                    (GENE-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gene;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ношо
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Wang
                                                                                                                                                                                                                                                                                                                                                                                                         RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                             d
d
```

ઠ

```
The invention relates to an isolated polynucleotide (I) comprising sequences selected from 273 sequences fully defined in the specification. (I), including its encoded polypeptide (II), an antibody binding to (II), a fusion protein comprising (II) and a T-cell population stimulated by (I) and treating head and neck cancer in a patient. An oligonucleotide (III) that hybridises to (I) is useful for determining the presence of cancer in a patient, by obtaining a biological sample from the patient, contacting the sample with (III), detecting in the sample an amount of a polynucleotide that hybridises to the oligonucleotide, and comparing the amount of polynucleotide that hybridises to the oligonucleotides to a predetermined cut-off value. (I) and (II) are useful in pharmaceutical compositions, e.g. vaccines, and other compositions for the diagnosis and treatment of head and neck cancer. ABK53806-ABK54078 represent human head cancer cDNA sequences of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cancer-
treating head and neck
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a method for detecting a bladder canfrom a patient. The method comprises
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       from a
patient
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 dene;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 1778;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human bladder cancer associated cDNA sequence SEQ ID NO:124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cell
n the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cancer; cytostatic; gene therapy; vaccine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Detecting a bladder cancer-associated transcript in a c
patient, comprises contacting a biological sample from
bladder cancer-associated polynucleotide or antibody.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .
0
 for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .
9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 1778 BP; 548 A; 357 C; 337 G; 536 T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 19; DB 6.
Pred. No. 0.33;
    vaccines,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          6; Page 274-275; 307pp; English.
                                                                         English
        e.g.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACC51017 standard; cDNA; 1778 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         invention describes ranscript in a cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                         200pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2001US-0302814P.
2001US-0310099P.
2001US-0343705P.
2001US-0350666P.
2002US-0372246P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BIOTECHNOLOGY INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       373 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2002WO-US021338
    compositions,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                            180-181;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2003-201532/19
P-PSDB; ABR48203.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Aziz N;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO2003003906-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human; bladder
```

; 0

```
0
                                                       invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Lung cancer-associated polynucleotide; gene; ds; cytostatic; emphysema; antinflammatory; antiasthmatic; non-small cell lung cancer; atelectasis; small cell lung cancer; benign lesion; precancerous lesion; bronchitis; chronic obstructive pulmonary disease; hypersensitivity pneumonitis; interstitial pulmonary fibrosis; fibrosis; asthma; bronchiectasis.
                                                                                                                                                 vaccine
contacting a biological sample from the patient with a polynucleotide that selectively hybridises to a sequence that is 80 % identical to a table of sequences (see ACC50951 to ACC51059). ACC50951 to ACC51059 encode the human bladder cancer-associated proteins given in ABR48146 thave cytostatic activities, and can be used in antisense gene therapy in vaccine production. The method can be used for detecting a bladder cancer-associated transcript in a cell from a patient. The method is useful in diagnosing or treating bladder cancer and in screening for compounds that modulate bladder cancer, such as hormones or antibodies. The nucleic acid molecules from the present invention may be used in various screening and diagnostic methods, and for gene therapy, vaccine
                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                Length 1778;
                                                                                                                                                                                       0 Other;
                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                       535 T; 0 U;
                                                                                                                                                                                                                                          ;
0
                                                                                                                                                                                                                 DB 8;
0.33;
                                                                                                                                                                                                                 Score 19; DB
Pred. No. 0.3
); Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                       polynucleotide #14.
                                                                                                                                                 various screening and diagnostic methods and/or antisense/inhibition applications
                                                                                                                                                                                      .
Ö
                                                                                                                                                                                        549 A; 357 C; 337
                                                                                                                                                                                                                                                                     19
                                                                                                                                                                                                                                                                                              35
                                                                                                                                                                                                                                                                                                                                                             ВР
                                                                                                                                                                                                                                           .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2001US-0284770P.
2001US-0290492P.
2001US-0339245P.
2001US-0350666P.
2001US-0334370P.
2002US-0372246P.
                                                                                                                                                                                                                 100.0%;
                                                                                                                                                                                                                                                                                                                                                           1778
                                                                                                                                                                                                                                                                     AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2002WO-US012476
                                                                                                                                                                                                                                                                                                                                                                                                                 entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BIOTECHNOLOGY
                                                                                                                                                                                                                             . Similarity 100
19; Conservative
                                                                                                                                                                                                                                                                                                                                                             standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                         cancer-associated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2003-093161/08
B; ABUS6421.
                                                                                                                                                                                                                                                                                                                                                                                                                (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Murray R;
                                                                                                                                                                                        1778 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO200286443-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18-APR-2001;
10-MAY-2001;
09-NOV-2001;
13-NOV-2001;
29-NOV-2001;
12-APR-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           18-APR-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 31-OCT-2002
                                                                                                                                                                                                                                                                                                                                                                                                                02-APR-2003
                                                                                                                                                                                                                                                                                                                                   RESULT 24
ABX76137/c
ID ABX76137
                                                                                                                                                                                                                                                                                                                                                                                       ABX76137;
                                                                                                                                                                                                                                                                                              373
                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                   Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             P-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (EOSB-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Aziz N,
                                                                                                                                                                                                                                Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI
                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                              g
```

```
to a sequence that is at least 80 % identical to a gene that exhibits increased or decreased expression in lung cancer samples. Lung cancer-associated polynucleotides and polypeptides are used for identifying a compound that modulates a lung cancer-associated polypeptide, for inhibiting proliferation of a lung cancer-associated cell to treat lung cancer in a patient and for treating a mammal having lung cancer by administering a modulatory compound identified. The methods are useful for treating lung cancer, such as small cell lung cancer, non-small cell lung cancer or other benign or precancerous lesions, e.g. atelectasis, emphysema, bronchitis, chronic obstructive pulmonary disease, fibrosis, bronchiectasis. The genes, polynucleotides and polypeptides are useful for diagnostic purposes and as targets for screening for therapeutic compounds that modulate lung cancer, such as antibodies. Sequences and baryfel24-ABX76474 represent lung cancer-associated polynucleotides of the
                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ic acid molecule useful for detecting, characterizing, ating human cervical cancers, in various prognostic and in pharmacogenomics and in monitoring clinical trials.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACF12828 to ACF12947 encode the human cervical cancer marker proteins (I) given in ABR92047 to ABR92164. A higher level of expression of (I) than normal indicates the presence of cervical cancer. Also described: (1) a vector (II) containing (I); (2) a host cell (III) containing (I); and (3) assessing (M1) whether a patient is afflicted with cervical cancer, comprising comparing the level of expression of a marker in a patient's
                                                                                                                                                                                                          the
                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ervical cancer marker; cancer therapy; vaccine; gene; ss.
                                                                                                                                                                                                                                                                                                        ;
0
                                                                                                                                                                                                                                                                               DB 8; Length 1778;
                                                                                                                                                                                                                                                   Other;
                                                                                                                                                                                                                                                                                                            Ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cell marker protein SEQ ID NO:134.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ά
                                                                                                                                                                                                                                                                                                           Indel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Kamatkar
                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                   ů,
                                                                                                                                                                                                                                                                                                          ;
0
                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                   H,
                                                                                                                                                                                                                                                                                             0.33;
                                                                                                                                                                                                                                                   535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 X, Monahan JE,
Hoersch S;
                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                               Score 19;
Pred. No.
                                                                                                                                                                                                                                                  .;
Ö
                                                                                                                                                                                                                                                   C; 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              288; 386pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cervical
                                                                                                                                                                                                                                                                                                                                                                                                                                         BP
                                                                                                                                                                                                                                                                                                                                                                   355
                                                                                                                                                                                                                                                                                                                                       1 AATTATTGATTCTGTAGGT 19
                                                                                                                                                                                                                                                                                                           ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                        standard; cDNA; 1778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2001US-0298155P.
2001US-0298159P.
2001US-0335936P.
                                                                                                                                                                                                                                                                               100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (MILL-) MILLENNIUM PHARM INC
                                                                                                                                                                                                                                                                                                                                                       AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                    549 A; 357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2002WO-US018638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Zhao
K, F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cancer; c
                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Glatt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human cervical cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        isolated nucleic venting and treat:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2003-156967/15
B; ABR92113.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Chen Y
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      preventing and treadiagnostic assays,
                                                                                                                                                                                                                                                                                               . Similarity
19; Conser
                                                                                                                                                                                                                                                     Sequence 1778 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cervical
ion; gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO2002101075-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Schlegel R, Ch
Gannavarapu M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              13-JUN-2001;
13-JUN-2001;
14-NOV-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     12-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10-SEP-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         19-DEC-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     detection;
                                                                                                                                                                                                                                                                                                                                                                                                              LT 25
2895/c
ACF12895 8
                                                                                                                                                                                                                           invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACF12895;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4
                                                                                                                                                                                                                                                                                 Query Match
Best Local S
Matches 19
                                                                                                                                                                                                                                                                                                                                                                     373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          P-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New
                                                                                                                                                                                                                                                                                                                                                                                                            RESULT
ACF1289
ID AC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ઠ
```

cancer-associated ing a biological ctively hybridises

transcript in a cell from a patient, comprising contacting a bi sample from the patient with a polynucleotide that selectively

invention relates to a method for detecting a lung seript in a cell from a patient, comprising contact

Claim 22; Page 198; 453pp; English

patient

Q

pre from the decreased

sample fr

cancer-associated transcript in a cell from g cancer, by contacting a biological sample f olynucleotide that exhibits increased or decr

Detecting a lung cancer-associ for treating lung cancer, by c patient with a polynucleotide expression in lung cancer.

· rng

ا ب

```
non
                                            in the
                                                                                in gene
Ising,
used in
    control
                                                          with
in ge
sample, and the normal level of expression of the marker in a conf-cervical cancer sample, where a significant increase in the levenexpression of the marker in the patient's sample relative to that control sample is an indication that the patient is afflicted with cervical cancer. (I) has cytostatic activity, and can be used in the therapy and in vaccines. (I) is useful in detecting, characterising preventing and treating human cervical cancers. (I) may also be useful in detecting.
                                                                                                                                       ind diagnostic assays, pharmacogenomics and trials
                                                                                                                                                                                                           Other;
                                                                                                                                               various prognostic and monitoring clinical tri
     8X33333333X8
```

0 u; 0 G; 536 T; C; 337 548 A; 357 1778 BP; Sequence

Gaps ö Length 1778 Indels . 0 DB 8; 0.33; Mismatches Score 19; Pred. No. 19 ; 0 100.0%; AATTATTGATTCTGTAGGT Conservative Similarity 19; Conser Local Matches Query Best 1 ਠੇ

ö

355 

<del>Q</del>

standard; DNA; 1778 3687/c ADD18687 SULT ADD18

вР

ADD18687

SeqID118 seguence disease related protein DNA Human

entry)

(first

15-JAN-2004

injury gical; apoptosis ٠- g human; disease state; cytostatic; antiinflammatory; ophthalmoloantiarteriosclerotic; vulnerary; gene therapy; hypoxia-regulated condition; tumourigenesis; angiogenesis; apopinflammation; erythropoiesis; glycolysis; gluconeogenesis; glucose transportation; catecholamine synthesis; iron transport nitric oxide synthesis; cancer; ischaemic condition; reperfusion retinopathy; neonatal stress; pre-eclampsia; atherosclerosis; inflammatory condition; wound healing; gene; ds.

Homo sapiens

WO2003018621-A2

06-MAR-2003

2002WO-GB003892 23-AUG-2002; 2001GB-00020558 2001GB-00024037 23-AUG-2001; 05-OCT-2001;

OXFORD BIOMEDICA UK LTD (OXFO-)

Mundy ŝ Naylor Harris RA, Ward NR, <mark>ل</mark> White 2003-290046/28 WPI; 2003-290040, P-PSDB; ADD18686 SM, Kingsman

as cancer, ischemia, reperatherosclerosis, inflammat a hypoxia-regulated condition, such as cinjury, retinopathy, pre-eclamonthe

invention This invention relates to novel human genes and gene product which are implicated in certain disease states. Compounds which modulate the proteins of the invention may have cytostatic, antiinflammatory, ophthalmological, antiarteriosclerotic or vulnerary activities. The sequences of the invention may be useful for gene therapy. The invention may be useful for diagnosing or treating a hypoxia-regulated condition, such as tumourigenesis, angiogenesis, apoptosis, inflammation, erythropoiesis, or the biological response to hypoxia conditions Claim 27; SEQ ID NO 118; 424pp; English. 

ö including processes such as glycolysis, gluconeogenesis, glucose transportation, catecholamine synthesis, iron transport or nitric oxide synthesis. The disease includes cancer, ischaemic conditions, reperfusion injury, retinopathy, neonatal stress, pre-eclampsia, atherosclerosis, inflammatory conditions or wound healing. The present sequence is that of a disease related protein encoding DNA sequence of the invention. obesity; Gaps anoretic; antidiabetic; immunomodulator; MMP-12 agonist;
MMP-12 antagonist; MMP-12 inverse agonist; anti-MMP-12 antibody,
antisense MMP-12; MMP-12 ribozyme; lipid homeostasis modulator;
glucose homeostasis modulator; insulin homeostasis modulator;
adipocyte growth modulator; metabolic disorder;
matrix metalloproteinase 12; MMP-12; translation inhibition; obe
overweight; diabetes; insulin resistance; cachexia; anorexia; ge .; 0 1778; 0 Other; Indels (MMP-12) Length 536 T; 0 U; ; 0 cDNA encoding human matrix metalloproteinase 12 10; Score 19; DB 10 Pred. No. 0.33; Mismatches C; 337 G; 355 19 m ö 100.0%; AATTATTGATTCTGTAGGT AATTATTGATTCTGTAGGT 548 A; 357 entry) Similarity 100 .9; Conservative CDNA; (first standard; 1778 BP; 12-FEB-2004 19; Query Match Best Local S Matches 19 ADF18049; 373 Sequence Н ADF18049 ADF18049/c RESULT 8 × 3 3 3 5 5 5 5 8 <del>a</del> ò

metalloproteinase" "Human MMP-12" Location/Qualifiers "Matrix (MILL-) MILLENNIUM PHARM INC. 07-JAN-2002; 2002US-0346354P 2003US-00337632 13. .1425
/\*tag= a
/product= /note= Chen H; US2003157110-A1 07-JAN-2003; 21-AUG-2003 An WF,

2003-897814/82 P-PSDB; ADF18050

or treating

diagnosing

useful for

usion

a compound capable of treating a metabolic disorder comprises r compounds that modulate matrix metalloprotease MMP-12 Claim 4; SEQ ID NO 1; 38pp; English. expression or activity Identifying a assaying for

The invention describes a method of identifying a compound capable of treating a metabolic disorder comprising assaying the ability of the compound to modulate a matrix metalloproteinase 12 (MMP-12) nucleic acid expression or MMP-12 polypeptide activity. The compound has anoretic, antidiabetic and immunomodulator properties. An antisense oligonucleotide or ribozyme targets the MMP-12 transcripts and inhibits translation. Alternatrively the oligonucleotide forms a triple helix with the promoter

.rng

.5

```
ö
                            cachexia
se 12 (MMP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                As
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                cteria,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               acids a
rred to
of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ve been
or the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         This invention relates to a novel method for treating or preventing microbial infections by the administration of MMPAP-12 nucleic acids encoded polypeptides thereof. Specifically MMPAP-12, also referred to MMP-12, refers to matrix metalloproteinase-12 and is a member of the family of matrix degrading enzymes capable of matrix destruction and hence contributes to such diseases as emphysema and aortic aneurysm. present invention, however, describes the unexpected non-enzymatic, antimicrobial properties of the MMP-12 protein at the cellular level. such, MMP-12 nucleic acids, proteins and fragments thereof, have been identified that exhibit specific activities which are useful for the treatment of infectious diseases associated with microorganisms, bacteria, virus, fungi or parasites such as pneumonia or peritonitis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             level.
                                                                                                                                                                                                                                                                                                                                                                                                     terial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 or peritonitis
antibacterial
                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   eful
                                                                                                                                                                                                                                                                                                                                                ΩI
                                           Ð
                                                                                                                                                                                                                                                                                                                                                                      gene; ds; human; microbial infection; MMPAP-12; MMP-12; matrix degrading enzyme; emphysema aortic aneurysm; antimicrobial; pneumonia; peritonitis; antibactirucidal; protozoacidal; fungicidal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   us
ba
                                                                                                                                                                                                                                                                                                                                             Full length human matrix metalloproteinase-12 (MMP-12) DNA (Seq
of the MMP-12 gene and inhibits transcription. The invention is identify a compound useful for treating a metabolic disorder, particularly obesity, overweight, diabetes, insulin resistance, or anorexia. This sequence encodes human matrix metalloproteina
                                                                                                                                       ö
                                                                                                            Length 1778;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 isolated MMPAP-12 polypeptide and nucleic acid molecule, sting infectious diseases associated with microorganisms,
                                                                                  0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 bacteria, virus, fungi or parasites such as pneumonia or
Accordingly, these compositions have been described as a
                                                                                                                                       Indels
                                                                                u;
                                                                                                                                       ;
0
                                                                                  0
                                                                                                            DB 10;
                                                                               ..
H
                                                                                                            Score 19; DB 10
Pred. No. 0.33;
Mismatches
                                                                                   536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "MMP-12 protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 18; SEQ ID NO 14; 126pp; English.
                                                                                  .;
O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WOMENS HOSPITAL INC
                                                                                  C; 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers 13. .1425
                                                                                                                                                                                             355
                                                                                                                                                                                                                                                                ВР
                                                                                                                                                                   19
                                                                                                                                        .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           08-APR-2002; 2002US-0370649P
                                                                                                            100.0%;
100.0%;
                                                                                                                                                                                                                                                                ADF74444 standard; DNA; 1778
                                                                                  Sequence 1778 BP; 548 A; 357
                                                                                                                                                                   AATTATTGATTCTGTAGGT
                                                                                                                                                                                    AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2003WO-US010911
                                                                                                                                                                                                                                                                                                                        entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              treating infectious urray
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /product=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hartzell WO;
                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      13. .14
/*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2003-865359/80.
P-PSDB; ADF74443.
                                                                                                                                                                                                                                                                                                                       (first
                                                                                                                        l Similarity
19; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BRIGHAM &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO2003087325-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  08-APR-2003;
                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                      26-FEB-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      23-OCT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Shapiro SD,
                                                                                                                                                                                                                                                                                             ADF74444;
                                                                                                                                                                     ,–1
                                                                                                            Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (BGHIM)
                                                                                                                                                                                                                                                   ADF74444/C
                                                                                                                                         Matches
                                                      -12)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Key
                                                                                                                                                                                                                                       RESULT
                                                                                                                                                                                                                                                                               8888888
                                                                                                                                                                                               d
                                                                                                                                                                     ò
```

```
0
                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The present invention describes a method for predicting, diagnosing or prognosing chronic lung disease by detecting a chronic obstructive pulmonary disease (COPD) gene related polynucleotide (see ACC46750 to ACC46777, which encode the COPD related proteins in ABP96779 to ABP96806). The method is useful for predicting, diagnosing or prognosing chronic lung disease in a biological sample. The COPD genes and proteins encoded by them from the present invention (I) can be used for treating or preventing chronic lung disease in a mammal. (I) can be used in an animal model for determining the efficacy, toxicity, or side effects of treatment with (I), and determining the mechanism of action of (I).

ACC46778 to ACC46903 represent COPD related PCR primers and probes used in an example from the present invention
                                                                                                                                                                                                                                                                        disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    disease, by detecting a in a biological sample
the full
                                                                                                                                                                                                                                                                                                                                                                                                                                              ິບ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                              Kroegel
                                                                                                                                                                                                                                                                        COPD; chronic lung
 iB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ;
0
                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 1778;
                                                        1778;
 This polynucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Other;
                                    Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                              H
                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indel
                                                        Length
                                                                                                                                                                                                                                                                                                                                                                                                                                              Schulze
                                                                                                                                                                                                                                                    ID NO:22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ü;
                                    0 U;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     lung
gene
 and fungicidal. This poly
sequence of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ;
0
                                                         10;
                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          536 T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 19; DB 1
Pred. No. 0.33;
                                                                                                                                                                                                                                                                          chronic obstructive pulmonary disease;
                                                                   0.33;
                                                                                                                                                                                                                                                                                                                                                                                                                                                ĸ
                                    536 T;
                                                                                                                                                                                                                                                    encoding cDNA SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Predicting, diagnosing or prognosing chronic chronic obstructive pulmonary disease (COPD)
                                                         Score 19; DB Pred. No. 0.3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                              Hall
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ü
                                   Ġ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      English
                                                                                                                                                                                                                                                                                                                                                                                                                                               Kallabis H,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C; 337
                                    C; 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   355
               sequence
                                                                                                                            355
                                                                                                                                                                                    ВР
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             19
                                                                                                      19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       214pp;
                                                                                                                                                                                    CDNA; 1778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 1778 BP; 548 A; 357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%;
100.0%;
                                                          100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                               2002WO-EP005835
                                                                                                                                                                                                                                                                                                                                                                                                   2001GB-00013266
                                    548 A; 357
                                                                                                      AATTATTGATTCTGTAGGT
                                                                                                                  373 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                    protein
                                                                                                                                                                                                                                (first entry)
   virucidal, protozoacidal
length human MMP-12 DNA B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                Gehrmann M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8; Page 110-111;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2003-140492/13
P-PSDB; ABP96800.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           l Similarity
19; Conserv
                                                                                                                                                                                    standard;
                                                                                                                                                                                                                                                      related
                                                                     Similarity
19; Conser
                                    Sequence 1778 BP;
                                                                                                                                                                                                                                                                                                                                  WO200297127-A2
                                                                                                                                                                                                                                                                                                                                                                                                                           BAYER
                                                                                                                                                                                                                                                                                                                                                                                                   31-MAY-2001;
                                                                                                                                                                                                                                                                                                                                                                              28-MAY-2002;
                                                                                                                                                                                                                                                                                                              sapiens
                                                                                                                                                                                                                                05-JUN-2003
                                                                                                                                                                                                                                                                                                                                                         05-DEC-2002
                                                                                                                                                                                                                                                     Human COPD
                                                                                                                                                                                                                                                                                                                                                                                                                                                 z
                                                                                                                                                                                                          ACC46771;
                                                          Query Match
Best Local S
Matches 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Match
                                                                                                        Н
                                                                                                                                                                                  ACC46771
                                                                                                                                                                                                                                                                                        88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                           (FARB )
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Oellers
                                                                                                                                                                                                                                                                             Human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim
                                                                                                                                                                                                                                                                                         gene;
                                                                                                                                                                                                                                                                                                              Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                              RESULT
ACC4677
                                                                                                                                                                                                                                                                d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ਨੇ
    SSXS
                                                                                                                             g
                                                                                                        ਠੋ
```

DNA #328

Human pulmonary and inflammatory target

entry)

(first

29-JUL-2004

ABD20717

standard; DNA; 1778

)717/c ABD20717

RESULT 31

· rng

S

```
Human; antisense; lung dysfunction; nasal airway dysfunction; antiinflammatory; antiallergic; antiinflammatory; antiallergic; antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy; antisense gene therapy; respiratory; lung; adenosine sensitivity; adenosine receptor; bronchodilation; bronchoconstriction; lung allergy; lung inflammation; respiratory disease; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The invention relates to a novel pharmaceutical composition, which first active agent comprising an oligonucleotide antisense to the initiation codon, coding region, 5' or 3' end genomic flanking region initiation codon, coding region, or regions within 2-10 nucleotide junctions of genes encoding a polypeptide associated with lung and nasal airway dysfunction and a second active agent comprising an antiinflammatory steroid and ubiquinone. A composition of the invense in antisense gene therapy. The composition of the invense in antisense gene therapy. The composition is useful for treat preventing a respiratory, lung or malignant disease or condition, for enhancing the prophylactic or therapeutic respiratory effect o antiinflammatory steroid in a subject, for reducing or depleting 1 of, or reducing bronchodilation, increasing levels of ubiquino receptor, producing bronchodilation, increasing levels of ubiquino lung surfactant in a subject's tissue, or treating bronchoconstric lung inflammation, lung allergies, or a respiratory disease or con Note: The sequence data for this patent is not represented in the specification, but was obtained in electronic format directly from at ftp.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pharmaceutical composition for treating ailments associated with respiration, has oligo(s) antisense to specific gene(s) or its corresponding RNAs, and glucocorticoid or non-glucocorticoid sterubiquinone.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 1778;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Aguilar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C; 337 G; 536 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pabalan J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ξ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Katz
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     872pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sandrasagra A,
                              BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         548 A; 357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQ ID NO 12110;
                                                                                                                                                                                                                                                                                                                                                                                            2002WO-US013135
                              standard; DNA; 1778
                                                                                                                                                                                                                                                                                                                                                                                                                              2001US-0286137P
                                                                                                                                                                                                                                                                                                                                                                                                                                                              (EPIG-) EPIGENESIS PHARM INC
                                                                                                                                   sednence
                                                                                                 entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2003-229219/22
                                                                                               (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Li Y, sa
Tang L,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
Matches 19; Conser
                                                                                                                                 acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 1778 BP;
                                                                                                                                                                                                                                                                                                                         WO200285308-A2
                                                                                                                                nucleic
                                                                                                                                                                                                                                                                                           sapiens.
                                                                                                                                                                                                                                                                                                                                                                                          23-APR-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                             24-APR-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Disclosure;
                                                                                                                                                                                                                                                                                                                                                           31-OCT-2002
                                                                                                17-0CT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Nyce JW,
Miller S,
            5868/c
ABZ96868
                                                                ABZ96868;
                                                                                                                                   Human
                                                                                                                                                                                                                                                                                         Ношон
RESULT
             AB296
```

impaired

eroid

```
This invention describes a novel composition (a) a first active agent, comprising oligonucleotides, effective for alleviating bronchoconstruction, respiratory tract inflammation, allergies and bronchoconstruction, respiratory tract inflammation, allergies and bronchoconstruction, respiratory tract inflammation, allergies and ceducing adenosine sensitivity, levels of adenosine (A) or (A) receptors, surfactant depletion or hyposecretion, when administered to a mammal. The oligonucleotides are derived from a gene encoding or regulating distribution or cancer and can be anti-sense to the corresponding mRNA. The invention also describes a kit, that comprises: (a) a delivery device, in separate containers, (b) the oligonucleotides, (c) instructions for adding a carrier and for use of the kit. The composition of the invention has antiallergic, antinflammatory, antiashmatic, analgesic, hypotensive, immunosuppressive and cytostatic activity, is a beta-adrenergic agonist. The composition is useful for preventing or treating a respiratory, lung or maligant disease. The administered to reduce the amount of the target mRNA or to composition comprises oligo and is administered to reduce the production or availability, or to increase the degradation of the target mRNA or to reduce the amount of target polypeptide present in the lungs. The pulmonary obstruction, and/or bronchoconstriction and/or bronchoconstriction and/or surfactant hypoproduction are associated inflammation, allergies and/or surfactant hypoproduction are associated inflammation, allergies, asthma, impeded respiration, respiratory distress byndrome, pain, cystic fibrosis, allergic rhinitis or cancer. The reduced adenosine content of the anti-sense oligos corresponding to the inflammation methods and pulmonary infections, bronchitis or cancer. The reduced adenosine content of the anti-sense oligos corresponding to the oligonucleotides into product that the benisonent and thereby, to it the oligonucleotides into product the transplantation rejection, pulmonary t
                                                                                                                   Human; antisense; bronchoconstriction; allergy; hyposecretion; pain; respiratory tract inflammation; adenosine sensitivity; lung; cancer; surfactant depletion; antiallergic; antiinflammatory; antiasthmatic; analgesic; hypotensive; immunosuppressive; cytostatic; cystic fibrosis; beta-adrenergic agonist; respiratory disease; pulmonary vasoconstriction; respiratory distress syndrome; allergic rhinitis; pulmonary hypertension; emphysema; chronic obstructive pulmonary disease; cancer; bronchitis; pulmonary transplantation rejection; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ţ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          eted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ű
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             rnarmaceutical composition for treating asthma, has antisense oligonucleotide containing less percentage of adenosine, targel nucleic acids associated with lung airway or lung dysfunction, bronchodilating agent.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Aguilar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pabalan J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ID NO 12110; 763pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ωì
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Katz
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ა
.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sandrasagra A,
, Shahabuddin
                                                                                                                                                                                                                                                                                                                                                                                                                                                              23-APR-2002; 2002WO-US013143.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (EPIG-) EPIGENESIS PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     24-APR-2001; 2001US-0286036P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2003-093058/08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Li Y, sa
Tang L,
                                                                                                                                                                                                                                                                                                                                                                        WO200285309-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    15; SEQ
                                                                                                                                                                                                                                                                                                                                Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                   31-OCT-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JW,
S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Nyce JW
Miller
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI;
```

.; 0

Gaps

.; 0

Indels

ö

Mismatches

; 0

Conservative

355

373 AATTATTGATTCTGTAGGT

엄

19

AATTATTGATTCTGTAGGT

Н

ਠੇ

0.33; DB

Pred. No

100.0%;

19;

Score

.

the printed

from WIPO

condition

uinone or

denosine

triction,

reating or

ಹ

v have

also

on,

invention

regions,

and/or

which has

of an levels

d

ò

```
gene; antipsoriatic; gene therapy; psoriasis;
                                                                                                                                                                                                                                                    (GETH ) GENENTECH INC.
                                                                         Antipsoriatic cDNA
                                                                                                                                                                                                                                                                                                                                                  New PRO nucleic a pharmaceutical commmal.
                                                                                                                                                   WO2004028479-A2
                                                                                                                           Homo sapiens
                                                                                                                                                                                                    25-SEP-2003;
                                                                                                                                                                                                                             25-SEP-2002;
                                                                                                                                                                            08-APR-2004.
                                                 01-JUL-2004
                                                                                                                                                                                                                                                                                                                                                                                                        Claim 1;
ADN05808
                         ADN05808
                                                                                                                                                                                                                                                                                                                  WPI; 200
P-PSDB;
                                                                                                                                                                                                                                                                               Bodary
Wu TD;
                                                                                                   ds;
 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The present invention relates to antisense oligonucleotides (ADI53690-ADI53701) for matrix metalloproteinase 12 (MMP-12; ADI53688 and ADI53689), which specifically hybridise with the nucleic acid encoding MMP-12 and inhibiting the translation of MMP-12 protein. The antisense oligonucleotides are useful for preparing a composition for treating or preventing MMP-12 dependent disorder in a human patient e.g. inflammatory bowel disease, such as ulcerative colitis and Crohn's disease, rheumatoid arthritis, psoriasis, emphysema or asthma.
                                                                ö
                                                                                                                                                                                                                                                                                            12;
disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         on for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                 Gaps
                                                                                                                                                                                                                                                        ij
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             acid encoding
                                                                                                                                                                                                                                                        Ω
                                                                                                                                                                                                                                                                              Antiinflammatory; Antipsoriatic; Antiasthmatic; Antiarthritic; Respiratory; antisense oligonucleotide; matrix metalloproteinase MMP-12; inflammatory bowel disease; ulcerative colitis; Crohn's crheumatoid arthritis; psoriasis; emphysema; asthma; human; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        or preparing a compositi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ë
                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 1778;
                                        Length 1778;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Good
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0 U; 0 Other;
                                                                                                                                                                                                                                                          cDNA sequence,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New compound having a sequence targeted to a nucleic metalloproteinase 12 (MMP-12), useful for preparing a treating or preventing MMP-12 dependent disorder in a asthma or psoriasis.
                 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Stein
               u;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         th similarity 100.0%; Score 19; DB 12; Similarity 100.0%; Pred. No. 0.33; 19; Conservative 0; Mismatches 0;
                                                               .;
0
                 0
                                         DB 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C; 337 G; 536 T;
               536 T;
                                                    0.33;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Von
                                      Score 19; DB Pred. No. 0.3
                                                                                                                                                                                                                                                         Human matrix metalloproteinase 12, MMP-12,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
               .;
Ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Stein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 2; SEQ ID NO 1; 55pp; English
                C; 337
                                                                                                                   355
                                                                                                                                                                                 ВР
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              19
                                                                                          19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Von
                                                                 0
                                                                                                                                                                                1778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      548 A; 357
                                                                                                       AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                 18-JUL-2002; 2002SE-00002253
04-SEP-2002; 2002US-0407680P
                 A; 357
                                                                                          AATTATTGATTCTGTAGGT
                                        th 100.0%;
Similarity 100.0%;
19; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                          2003WO-SE001223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Loefberg R,
                                                                                                                                                                                  CDNA;
                  548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (INDE-) INDEX PHARM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2004-123288/12
                                                                                                                                                                                                                                   (first
                                                                                                                                                                                  standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 1778 BP;
                 Sequence 1778 BP;
                                                                                                                                                                                                                                                                                                                                                                         WO2004009098-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ä
                                                                                                                                                                                                                                                                                                                                                                                                                           17-JUL-2003;
                                                                                                                                                                                                                                   22-APR-2004
                                                                                                                                                                                                                                                                                                                                                                                                   29-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Dieckmann
                                                                                                                                                                                                           ADI53688;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local 9
                                                                                                                                                                                 AD153688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local
                                          Query Match
                                                        Local
                                                                                                                                                                     ADI53688/c
                                                                                                                                                                                                                                                                                                                                                   Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                          RESULT
```

```
The invention relates to novel polynucleotide and polypeptides for treating psoriasis or a sequence having at least 80% identity to the above sequences. The nucleic acid is useful for preparing a composition for diagnosing or treating psoriasis in a mammal. This sequence corresponds to one of the polynucleotides of the invention.
                                                                                                                                                                               Gaps
                                                                                                                                                                              ;
0
                                                                                                                                             Length 1778;
                                                                                                            U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                Human colorectal cancer-associated protein coding sequence
                                                                                                                                                                                 Indels
                                                                                                                                                                                 ö
                                                                                                                                              DB 12;
                                                                                                             C; 337 G; 536 T; 0
                                                                                                                                            larity 100.0%; Score 19; DB 1;
Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   фs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  human; colon cancer; TIMP1; Regl-alpha; colorectal cancer-associated marker; gene;
                                                                                                                                                                                                                                                      355
                                                                                                                                                                                                                                                                                                                                             BP
                                                                                                                                                                                                                    1 AATTATTGATTCTGTAGGT 19
                                                                                                                                                                                                                                                                                                                                           1778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2003EP-00257868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             13-DEC-2002; 2002US-0433554P
                                                                                                               Sequence 1778 BP; 548 A; 357
                                                                                                                                                                                                                                         AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                  entry)
                                                                                                                                                                                                                                                                                                                                              DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                  (first
                                                                                                                                                                                                                                                                                                            RESULT 34
ADQ29584/c
ID ADQ29584 standard;
                                                                                                                                                                   Similarity 19; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              15-DEC-2003;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EP1439393-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21-JUL-2004
                                                                                                                                                                                                                                                                                                                                                                                                                   07-OCT-2004
                                                                                                                                                                                                                                                        373
                                                                                                                                                                                                                                                                                                                                                                                 ADQ29584
                                                                                                                                                    Query Match
                                                                                                                                                                   Local
                                                                                                                                                                    Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ношо
```

355

AATTATTGATTCTGTAGGT

373

d

ð

ADN05808/c

RESULT

ö

XH.

Wood

Williams PM,

Schoenfeld J,

D,

Jackman

Clark H,

ŝ

2004-305105/28 B; ADN05809.

2003WO-US030907

2002US-0414006P

diagnosis

sequence #1135

(first entry)

BP

standard; cDNA; 1778

ø

in

; acid or polypeptide, useful for preparing a composition for diagnosing or treating psoriasis

ID NO 2202; 3069pp; English.

SEQ

```
RESULT
                                                                                                                                                                      ABZ204
                                                                                                                                                                                                                           d
                                                                                                                         ò
                                                                                                                                                                                                                                     ö
                                              SH;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      er patient
                                                                                                                                                        llpha and
of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       comprises of each of levels.
                                                                                                                                                               the
The
                                              Myerow
                                                                                          ecting
                                                                                                                                                                             iated
                                                                                                                                                                                                                                    Gaps
                                                                                                    18
                                                                                                                                                 he
                                                                                                    ø
                                                                                                                                      The invention comprises a method for diagnosing colon cancer in individual, the method involves obtaining a serum sample from tindividual and detecting the presence of either TIMP1 or Reg1-a an additional colorectal cancer-associated marker. The method of invention is useful for diagnosing colon cancer in an individual present DNA sequence represents a human colorectal cancer-associatein coding sequence of the invention.
                                                                                          Diagnosing colon cancer in individual, preferably human, by deteresence of TIMP 1 in sample, where presence of TIMP 1 in sample indicative of colon cancer in individual.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      canc
                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                     Length 1778;
                                                                                                                                                                                                     0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a breast cancer patient according to prognosis
the similarity between the level of expression
in a cell sample taken from patient, to control
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      of classifying a breast
                                              Maimonis
                                                                                                                                                                                                                                                                                                                                                                      expression; diagnosis
                                      Catino
                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                      0 U;
                                                   Thibodeau SN,
                                                                                                                                                                                                                                    .;
0
                                     Burgess CC,
Lewis ME,
                                                                                                                                                                                                                    DB 12;
0.33;
                                                                                                                                                                                                      536 T;
                                                                                                                                                                                                                    Score 19; DB Pred. No. 0.3 0; Mismatches
               BAYER HEALTHCARE LLC.
MAYO FOUND MEDICAL EDUCATION & RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure, SEQ ID NO 769; 226pp; English
                                                                                                                                                                                                      .;
છ
                                                                                                                          SEQ ID NO 10; 433pp; English
                                     LJ,
n KA,
                                                                                                                                                                                                      C; 337
                                                                                                                                                                                                                                                                                                                                                        Breast cancer prognosis marker #769
                                                                                                                                                                                                                                                                                                                                                                        cancer; prognosis; gene
                                                     Thiagalingam A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      method
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LIC.
                                      Bugart L
                                                                                                                                                                                                                                                                    35
                                                                                                                                                                                                                                                                                                          ВР
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CANCER INST
                                                                                                                                                                                                                                                     19
                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                     100.0%;
                                                                                                                                                                                                      Sequence 1778 BP; 548 A; 357
                                                                                                                                                                                                                                                    AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                          1778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (ROSE-) ROSETTA INPHARMATICS
                                                                                                                                                                                                                                                                                                                                                                                                                                     2004WO-US001100
                                                                                                                                                                                                                                                                                                                                                                                                                                                   2003US-00342887
31-JUL-2003; 2003US-0491397P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The invention relates to
                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                          standard; DNA;
                                      E, E
                                       Boardman I
Huntress
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2004-593473/57.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NETHERLANDS
                                                                                                                                                                                                                                                                                                                                         (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           He
                                                                     2004-545561/53
                                                                                                                                                                                                                             Similarity
19; Conser
                                                     Brown-Shimer SLA,
                                                                                           Diagnosing colon
presence of TIMP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        in a
                                                                             P-PSDB; ADQ29651
                                                                                                                                                                                                                                                                                                                                                                                                     WO2004065545-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3
                                                                                                                                                                                                                                                                                                                                                                                                                                     S-JAN-2004;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    -JAN-2003;
                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Classifying
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  determining
                                                                                                                                                                                                                                                                                                                                                                                                                      05-AUG-2004
                                                                                                                                                                                                                                                                                                                                         21-OCT-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Veer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        genea
                                       JH,
Ii P,
                                                                                                                                                                                                                                                                                                                          ADR24908;
                                                                                                                         7;
                                                                                                                                                                                                                                                                    373
                                                                                                                                                                                                                                                                                                          ADR24908
                                                                                                                                                                                                                       Match
               (FARB )
(MAYO-)
                                                                                                                                                                                                                             Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (NECA-)
                                              Dwivedi
                                                                                                                          Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Van't
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         five
                                                                                                                                                                                                                                                                                                   ADR24908/c
                                                                                                                                                                                                                                      ches
                                                                                                                                                                                                                                                                                                                                                                         дв;
                                                                                                                                                                                                                              Best
                                                                                                                                                                                                                                                                                            RESULT
                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                    a
```

```
..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABQ17575 to ABQ20506 represent isolated polynucleotide (I) sequences, and ABP54446 to ABP54472 represent protein (II) sequences, from the present invention. (I) and (II) have cytostatic activity and can be used in gene therapy and vaccines. (I), (II), antibodies and compositions from the present invention are useful for diagnosing, preventing and treating cancer, which expresses CT or CP mRNA antigens. They are useful for stimulating immune response. They can also be useful in virology, immunology, microbiology, molecular biology and recombinant DNA techniques. N.B. The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at ftp.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DNA
according to prognosis by determining the similarity between the level of expression of each of five genes for which markers are listed in the specification, in a cell sample taken from the breast cancer patient, to control levels of expression for each respective five genes to obtain a patient similarity value. The methods are useful for classifying a breast cancer patient according to prognosis. Kits and computer program products are useful for data analysis using the diagnostic, prognostic and statistical methods of the invention. This sequence corresponds to a marker used in the method of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human; cancer; tumour; therapy; diagnosis; CT antigen; CP antigen;
immune response; virology; immunology; microbiology; molecular biology,
recombinant DNA technology; gene; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New immunogenic polynucleotides or polypeptides useful for diagnosing, preventing and treating cancer expressing CT or CP mRNA antigens, and virology, immunology, microbiology, molecular biology and recombinant
                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQ ID NO:2910
                                                                                                                                                                                                                                                                                                                                    .;
0
                                                                                                                                                                                                                                                                                        Length 1778;
                                                                                                                                                                                                                                          0 Other;
                                                                                                                                                                                                                                                                                                                                        Indele
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  seguence
                                                                                                                                                                                                                                          'n;
                                                                                                                                                                                                                                                                                                                                   ;
0
                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                       Score 19; DB 13;
Pred. No. 0.33;
; Mismatches 0
                                                                                                                                                                                                                                          Ŧ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  length cDNA
                                                                                                                                                                                                                                              536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              207pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ä
                                                                                                                                                                                                                                              .
Ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaiger
                                                                                                                                                                                                                                            C; 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               full
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ВР
                                                                                                                                                                                                                                                                                                                                                                                                                                    355
                                                                                                                                                                                                                                                                                                                                                                                 .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2001US-0280255P.
2001US-0315563P.
2002US-0347313P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ABZ20476 standard; cDNA; 1781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CS,
                                                                                                                                                                                                                                                                                       th 100.0%; Similarity 100.0%; 19; Conservative (
                                                                                                                                                                                                                                              548 A; 357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2002WO-US010421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matrix metalloproteinase 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2910;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Bangur
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2003-058387/05
P-PSDB; ABP54460.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CORIXA CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 1; SEQ ID NO
                                                                                                                                                                                                                                              1778 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO200278516-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Wang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               30-MAR-2001;
28-AUG-2001;
09-JAN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   28-MAR-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             virology, i
techniques.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  23-JAN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10-OCT-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABZ20476;
                                                                                                                                                                                                                                                                                                                                                                                                                                     373
                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (CORI-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ŧ,
                                                                                                                                                                                                                                                                                                                  Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Wang
                                                                                                                                                                                                                                                                                                                      Best Loc
Matches
```

AAF81624/C

37

RESULT

Best

à

SO

Homo

Ŋ

```
Novel human macrophage metalloelastase polynucleotides and polypeptides useful for measuring elastin degradation.
                                                                                                     macrophage metalloproteinase; elastin; matrix degrading enzyme;
                                                                                                                                                                                                                                                                                                                                                                                                           The present invention provides the coding and protein sequences human macrophage metalloelastase. This is a matrix degrading metalloproteinase which has the ability to degrade elastin, and used to measure elastin degradation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       563 A; 365 C; 350 G; 540 T; 0 U; 0 Other;
                                                                               Human macrophage metalloelastase coding sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              soft tissue sarcoma; cytostatic; gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            361 AATTATTGATTCTGTAGGT 343
           BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AATTATTGATTCTGTAGGT 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .
0
                                                                                                                                                                                                                                                                                                                                                                                    English.
AAC64994/c
ID AAC64994 standard; cDNA; 1818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%;
100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .366/c
ADQ23366 standard; DNA; 1873
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2003WO-US038193
                                                                                                                                                                                                                 93US-00068392
                                                                                                                                                                                                                                         93US-00068392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                entry)
                                                          entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                 WASHINGTON
                                                                                                                                                                                                                                                                                                                                                                                     20pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first
                                                          (first
                                                                                                                                                                                                                                                                                                               WPI; 2001-049090/06
P-PSDB; AAB49982.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
19; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         tissue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 1818 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO2004048938-A2
                                                                                                                   emphysema; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        26-NOV-2003;
                                                                                                                                                                                                                                                                                                                                                                                      Claim 2; Fig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                UNIW ( WIND)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10-JUN-2004.
                                                                                                                                                                                                                  28-MAY-1993;
                                                                                                                                                                                                                                          28-MAY-1993;
                                                                                                                                                                   US6150152-A.
                                                                                                                                                                                           21-NOV-2000.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                26-AUG-2004
                                                                                                                                                                                                                                                                                         SD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       soft
                                                          13-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADQ23366;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local S
Matches 19
                                   AAC64994
                                                                                                                                                                                                                                                                                         Shapiro
                                                                                                         Human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADQ23366,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT
                      Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
0
                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HME coding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  s of human activity.
                                                                                                                                                                                                                                                        emphysema;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              yonic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       lt in
thought
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The present invention provides the protein and coding sequences macrophage metalloelastase (HME). The protein has elastolytic a HME has a role in tissue remodeling and repair associated with development and inflammation, and abnormal expression can resultumour invasiveness, arthritis and atherosclerosis. It is also contribute to the pathogenesis of pulmonary emphysema and other inflammatory destructive diseases. The present sequence is the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        repair, parti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
0
                                                                                                                                                                                                                                                        elastolysis; pulmonary
                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 1818;
                        Length 1781;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0 Other;
0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New human macrophage metalloelastase, useful in the normal development, growth, tissue remodeling and tissue repair, I studying the pathogenesis of pulmonary emphysema.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                Indels
                                                                                                                                                                                                                                                                                                                                                       "macrophage metalloelastase"
                                                                                                                                                                                                                                 coding sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0 U;
ů;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ;
0
                                               0;
                        .;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4;
 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     19; DB 4;
No. 0.33;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C; 350 G; 540 T;
534 T;
                         DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                Mismatches
                                     0
                        Score 19;
Pred. No. (
                                                                                                                                                                                                                                                       macrophage metalloelastase;
.
G
                                                                                                                                                                                                                                macrophage metalloelastase HME
                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
1. .1413
/*tag= a
/product= "macrophage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score
Pred.
   341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             343
                                                                                                355
                                                                                                                                                           BP
  ΰ
                                                                         19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5; 20pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%;
                                                                                                                                                           1818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1818 BP; 563 A; 365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AATTATTGATTCTGTAGGT
  359
                                                                        AATTATTGATTCTGTAGGT
                                                                                            AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                              95US-00396988
                                                                                                                                                                                                                                                                                                                                                                                                                                                     93US-00068392
                        100.0%;
larity 100.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
  A;
                                                                                                                                                                                                                                                                      83
                                                                                                                                                           CDNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WASHINGTON
   547
                                                                                                                                                                                                                                                                      disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2001-289518/30
P-PSDB; AAB74595.
                                                                                                                                                                                                         (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 Similarity
19; Conserv
                                                                                                                                                          standard;
                                     Similarity 19; Conser
   BP;
   1781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Fig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             UNIM ( WIND)
                                                                                                                                                                                                                                                                      inflammatory
                                                                                                                                                                                                                                                                                                                                                                                                                            01-MAR-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                     28-MAY-1993;
                                                                                                                                                                                                                                                                                             sapiens
                                                                                                                                                                                                                                                                                                                                                                               US6204043-B1
                                                                                                                                                                                                                                                         Human; HME:
                                                                                                                                                                                                                                                                                                                                                                                                       20-MAR-2001
                                                                                                                                                                                                         11-JUN-2001
                                                                                                                                                                                   AAF81624;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Example;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local
                                                                          М
                                                                                               373
                                                                                                                                                           AAF81624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          sednence
    Sequence
                          Query Match
                                     Local
```

can pe

```
.
0
                                                                                                   therapy; vaccine; screening; human;
           Gaps
           ·.
4; Length 1818
           Indels
                                                                                          - SEQ ID 6186
           ;
0
Score 19; DB 4;
Pred. No. 0.33;
); Mismatches
                                                                                         sarcoma-upregulated DNA
                                                                                                                                                             2002US-0429739P
                                                                                                                                                              26-NOV-2002;
```

Matches

RESULT

d

ð

```
RESULT
ADB4733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                          tissue sarcoma
n individual
                                                                                                                                      The invention relates to a novel method for detecting soft tissue sarcomination value tissue sample from an individual and a normal soft tissue sample from the same or different individual, determining the expression of a gene in both samples and comparing the expression of the gene in both soft tissue samples, where a higher level of protein expression in the first soft tissue sample indicates the presence of soft tissue sarcoma. The method of the invention has cytostatic applications and may be useful for detecting soft tissue sarcoma, possibly via gene therapy or vaccine production. The nucleic acid sequences may be useful in diagnostic and screening applications. The current sequence is that of a human soft tissue sarcoma-upregulated DNA of the invention. The current sequence is not shown within the specification per se but was submitted in CD format by the inventor.
                                                               opression
se sample
tissue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human; cancer associated gene; cancer antigen; detection; cancer; diagnosis; cytostatic; proliferative; vulnerary; immunomodulator; antidiabetic; antiasthmatic; antirheumatic; antiarthritic; antiviral; antiinflammatory; antithyroid; antiallergic; antibacterial; cardiant; dermatological; neuroprotective; thrombolytic; coagulant; nootropic; vasotropic; antipsoriatic; antiangiogenic; gene therapy; inflammation; immune disorder; haematopoietic cell disorder; autoimmune disorder; allergic reaction; graft versus host disease; organ rejection; haemostatic; thrombolytic; cardiovascular disorder; infection; neurological disease; drug screening; ss.
                                                                                                                                                                                                                                                                                                                                          Gaps
                                                               Early detection of soft tissue sarcoma comprises determining exof a gene in a first soft tissue sample and a normal soft tissue and comparing the gene expression, also useful in treating soft
                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                   Length 1873
                                                                                                                                                                                                                                                                                               0 Other;
                                                                                                                                  for detecting sort
                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQ ID NO:375.
                                                                                                                                                                                                                                                                                               C; 356 G; 548 T; 0 U;
                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                   DB 12;
                                                                                                                                                                                                                                                                                                                    19; DB 12
No. 0.33;
                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                   English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sequence
                                                                                                                                                                                                                                                                                                                     Score
Pred.
                                                                                                                     6186; 210pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                          BP
                                                                                                                                                                                                                                                                                                                                                                                    403
                                                                                                                                                                                                                                                                                                                                                                19
  LABS INC
                                                                                                                                                                                                                                                                                                                                          ;
0
                       Zlotnik
                                                                                                                                                                                                                                                                                                                                                                                                                                           1874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000WO-US005882
                                                                                                                                                                                                                                                                                                 590 A; 379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99US-0124270P
                                                                                                                                                                                                                                                                                                                                                                AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                       ••
                                                                                                                                                                                                                                                                                                                                                                                    421 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                100.0%;
                                                                                                                                                                                                                                                                                                                      %
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SCI
                                                                                                                                                                                                                                                                                                                      100
                                                                                                                                                                                                                                                                                                                                                                                                                                           standard; cDNA;
                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           associated
  PROTEIN DESIGN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (HUMA-) HUMAN GENOME
                                                                                                                      ON OI
                       Ginsburg WM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ruben SM;
                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first
                                             2004-441208/41
                                                                                                                                                                                                                                                                                                 Sequence 1873 BP;
                                                                                                                      SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO200055350-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   08-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          12-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21-SEP-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     08-FEB-2001
                                                                                                                      2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Rosen CA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAC77981;
                                                                                                                                                                                                                                                                                                                                                                                                                                           AAC77981
                                                                                                                       Example
                                                                                                  вагсоша
   (PROT-)
                       z
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human
                                                                                                                                                                                                                                                                                                                                                                                                                       40
                                             WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                  AAC77981,
                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
D
                                                                                                                                                                                                                                                                                                                                                                  ਠੇ
```

```
AAC77607 to AAC78448 encode the human cancer associated proteins given in AAB4339 to AAB44239. The proteins can have activities based on the tissues and cells the genes are expressed in. Example of activities include: cytostatic; proliferative; vulnerary; immunomodulator; antiathmatic; antiatheumatic; antiathritic; antiathritic; antiathmatic; antiathritic; antiathmatic; antiathritic; antiathritic; antiathmatic; antiathritic; antiathritic; coagulator; cascing and polypeptide; and antiangiogenic. The nootropic; vasotropic; antipsoriatic and antiangiogenic. The present invention may be used for preventing, treating or polynucleotides, polypeptides, antibodies, agonists and antagonists from the present invention may be used to treat immune disorders by activating or inhibiting the proliferation, differentiation or mobilisation of immune cells, to treat disorders of haematopoietic cells, autolumnne cejection, modulate haemostatic or thrombolytic activity, modulate inflammation, cancers, cardiovascular disorders, neurological disease and cardiovascular disorders, neurological disease and AAB4857 and AAB4840 represent sequences used in the exemplification of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                   sequences encoding peptides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 3; Length 1874;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ss; gene; human; dendritic cells; high throughput; cancer; infectious disease; autoimmune disease; allergy; gene therapy graft versus host disease; vaccine enhancing; gene therapy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indele
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human cDNA upregulated in dendritic cells SEQ ID NO 36.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 1874 BP; 609 A; 367 C; 352 G; 546 T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0.33;
                                                                                              cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 19; DB
Pred. No. 0.3
); Mismatches
                                                                   comprising
                                                                     acids comprising diagnosing e.g.
                                                                                                                                          2352pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Cocks BG;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          336/c
ADB47336 standard; cDNA; 1988 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             03-OCT-2001; 2001US-00971392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           03-OCT-2000; 2000US-0237652P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CI,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                   wovel isolated nucleic useful for treating or
                                                                                                                                        921-922;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pearson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PETERSON D P. PEARSON C I. COCKS B G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              the present invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2003-662509/62.
WPI; 2000-587533/55
P-PSDB; AAB43772.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US2003134283-A1
                                                                                                                                            Claim 1; Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             eterson DP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                17-JUL-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        04-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (PETE/)
(PEAR/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (COCK/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
```

Mon

```
or
    ed in
                 ng or
raft
                diagnosi
     express
             a composition for diagnos autoimmunity, allergy or
are differentially
               preparing
s disease,
   CDNAs that
combination comprises cD
Litic cells useful for p
ting cancer, infectious
                                         versus host disease
           endritic cells
reating cancer
                          treating
```

English 28pp; 36; 2 SEQ ID .. H Claim

is a high useful for or graft equence the printed directly from USPTO or more theThe invention relates to a combination comprising cDNAs that are differentially expressed in dendritic cells (DC). Also included is throughput method for detecting differential expression of one or cDNAs in a sample containing nucleic acids. The combination is use preparing a composition for diagnosing, treating and monitoring the treatment of cancer, infectious disease, autoimmunity, allergy or versus host disease, or for enhancing a vaccine. The present seque represents a human cDNA upregulated in dendritic cells. Note: The sequence data for this patent did not form part of the printed specification but was obtained in electronic format directly from at sequence.uspto.gov/sequence.html?DocID=20030134283.

Other; Н u; 0 Ħ, 602 .; Ö 371 ပ် 1988 BP; 627 A; 387 Seguence 

Length 1988; Indels . 0 DB 10; 0.33; Score 19; DB Pred. No. 0.3 ); Mismatches 378 19 ; 100.0%; ilarity 100.0%; Conservative 0: AATTATTGATTCTGTAGGT Similarity 19; Conser 396 Query Match Best Local Matches Б ð

standard; 857/c ADD29857 ADD29857 ADD29857 RESULT

BP

2870 **mRNA** entry) mRNA; suppressor (first tumour 15-JAN-2004 Human 

gene suppressor; cancer; cancer; cytostatic; tumour ss; human;

SEQ ID NO:288

therapy

sapiens Homo

WO2003058201-A2

17-JUL-2003

2002WO-US041825 31-DEC-2002;

2001US-0345317P 31-DEC-2001;

FOUND QUARK BIOTECH INC CLEVELAND CLINIC (QUAR-) (CLEV-)

AV; Gudkov ы Feinstein

WPI; 2003-598393/56

determining the polypeptide or polynucleotide, in a sample from a subject, where a higher subject free of cancer is indicative of lagnosing cancer comprises cevels e.g., hepatic lipase, evel compared to that in a s Diagnosing ca levels e.g.,

272pp; English. 288; Disclosure; SEQ ID NO

subject, of the free any t 0 in theThe invention relates to a novel method for diagnosing a cancer i subject. the method comprises determining, in a sample from the sthe level of at least one polypeptide, where a higher level of the polypeptide in a subject polypeptide compared to the level of the polypeptide in a subject cancer is indicative of cancer. The polypeptide is selected from the polypeptides encoded by the polynucleotides listed in the specification and polypeptides which are at least 70% homologous

invention polypeptides. The method of the invention has cytostatic activity, and may have a use in gene therapy. The method is useful in identifying markers specific for one or several types of cancer, depending on the tissue origin, which may be used in numerous diagnostic and prognostic applications as well as cancer type-specific targets for therapeutic intervention. The compounds that modulate the activity of a tumour suppressor gene are useful in the treatment of cancer or as anti-cancer drugs. The present sequence represents a polynucleotide of the invention 

0 Other; ů; 884 T; 0 .; Ö C; 563 2870 BP; 883 A; 540 Sequence

Gaps · 0 Length 2870; Indels 0; 100.0%; Score 19; DB 10; 100.0%; Pred. No. 0.33; Mismatches 0; Conservative l Similarity 19; Conserv Query Match Best Local S Matches 19

; 0

1447 1 AATTATTGATTCTGTAGGT 19 1465 g ਨੇ

RESULT AAA350

ВР 9137 standard; DNA; AAA35055

AAA35055

ö

Gaps

; 0

entry) (first 28-JUL-2000

Human adenosine receptor related polynucleotide SEQ ID NO:2744

Human; adenosine receptor; low adenosine antisense oligonucleotide; phosphorothioate; impaired respiration; inflammation; allergy; allergic disease; bronchoconstriction; inhibitor; antiinflammatory; antiallergic; antiasthmatic; cytostatic; analgesic; impaired airway; lung disease; ischaemic condition; pulmonary vasoconstriction; asthma; respiratory distress syndrome; pain; cystic fibrosis; emphysema; pulmonary hypertension; chronic obstructive pulmonary disease; COPD; cancer; leukaemia; lymphoma; carcinoma; metastasis; ss.

sapiens. Ношо

WO200009525-A2

24-FEB-2000

99WO-US017712. 03-AUG-1999; 98US-0095212P. 03-AUG-1998;

EAST CAROLINA (UYEC-) UNIV

Nyce JW;

2000-205971/18 WPI; New antisense oligonucleotides useful for treating e.g. pulmonary vasoconstruction, inflammation, allergies, asthma, hypertension, bronchitis, emphysema, respiratory distress syndrome, ischemia or cancers

English Page 1018-1020; 1343pp; Disclosure;

The present invention describes a new composition comprising an antisense oligonuclectide (ON) with low adenosine (up to 15%), which targets nucleic acids involved in bronchoconstriction, allergies, and/or inflammation. The ON can have antiinflammatory, antiallergic, antiasthmatic, cytostatic and analgesic activities. The compositions are useful for the treatment of diseases associated with inflammation, impaired airways, including lung disease and diseases whose secondary effects afflict the lungs of a subject. They can be used for treating e.g. ischaemic conditions, pulmonary vasoconstriction, allergies, asthma, impeded respiration, respiratory distress syndrome, pain, cystic fibrosis, pulmonary hypertension, emphysema, chronic obstructive

Mon

```
he last 185
s differ
                                                 the
                                                                                                                   esent the
                                                                                                                                                                                                             to 1680 (AAA32323 to resent invention. N.B. invention do not match
                                                                                                                                                                                                                                                                                      equence
                          luding
cent of
                                                                                         sausing
              carcinomas, and cancers which may metastasise to the lungs, includin breast and cancers which may metastasise to the lungs, includin breast and prostate cancer. The reduction of the adenosine content of the adenosine side effects. The A-containing ONs break down with the release of deoxyadenosine which activates adenosine receptors causin bronchoconstriction and inflammation. AAA32313 to AAA35312 represent nucleotide sequences given in the sequence listing from the present invention, which correspond to SEQ ID NO:1 to 2815, and then the lass sequences are also called SEQ ID NO:1 to 185, but the sequences differom the previously named sequences. SEQ ID NO:11 to 1680 (AAA3233 AAA33992) are specifically claimed ONs from the present invention. N Sequences given in the disclosure of the present invention do not ma
         omas,
                                                                                                                                                                                                                                                                                    sequences given in the
   as leukaemias
                                                                                                                                                                                                                                                                                  with their corresponding SEQ ID NO:
   and cancers
   (COPD)
pulmonary disease
                                                                                                                                                                                                                                                                                                          listing
  $5555555555555555888
```

0 Other Sequence 9137 BP; 2510 A; 2118 C; 2093 G; 2416 T; 0 U;

Gaps .; 0 9137; Indels Length ö 3; Score 19; DB 3 Pred. No. 0.32; Mismatches .; 0 100.0%; Conservative Similarity 19; Query Matc| Best Local Matches

ö

4762 19 4780 AATTATTGATTCTGTAGGT AATTATTGATTCTGTAGGT

a a

ઠે

standard; DNA; 9137 AAF21177 AAF21177/c RESULT

(first 14-MAR-2001 AAF21177;

Human low adenosine antisense oligonucleotide related sequence

entry)

rhinitis; Low adenosine antisense oligonucleotide; phosphorothioate; allergy; human; airway disorder; bronchoconstriction; lung inflammation; surfactant depletion; respiratory; bronchodilator; antiinflammatory; immunosuppressive; antiasthmatic; analgesic; hypotensive; cytostatic; respiratory obstruction; pulmonary obstruction; impeded respiration; surfactant hypoproduction; pulmonary vasoconstriction; asthma; RDS; respiratory distress syndrome; pain; cystic fibrosis; allergic rhinitis; pulmonary hypertension; emphysema; pulmonary transplantation rejection; chronic obstructive pulmonary disease; pulmonary infection; bronchitis; cancer; 

Homo sapiens

WO200062736-A2

26-OCT-2000

2000WO-US008020 24-MAR-2000; 99US-0127958P 06-APR-1999;

CAROLINA EAST J W. NYCE (NYCE/) (UXEC-)

Nyce

WPI; 2000-679539/66.

ot trigger cancers not adenosine (A) content antisense oligonucleotides which do nadenosine receptors during metabolism, useful e.g. for treating and respiratory obstructions.

Page 1096-1098; 1592pp; English

ive base The present invention describes low adenosine (A) content antisense oligonucleotides and compositions (I) comprising them. In the antise oligonucleotides the A is replaced by a 'Universal' or alternative l

immunosuppressive, antiasthmatic, hypotensive and cytostatic activities.
The antisense oligonucleotides and (I) can be used to down-regulate the expression and or activity of target polypeptides associated with lung/respiratory disorders and malignancies, such as stimulating and activating peptide factors and transmitters, transcription factors, immunoglobulins and antibodies, antibody receptors, cytokines and chemokines, endogenously produced specific and non-specific enzymes, binding proteins, adhesion molecules and their receptors, cotoxine and chemokine receptors, adenosine receptors, bradykinin receptors, central nervous system (CNS) and peripheral nervous and non-nervous system peptide receptors, binding proteins, growth factors, vasociated proteins. The receptors, binding proteins and malignancy associated proteins. The receptors, binding proteins and malignancy associated proteins. The antisense oligonucleotides may be used in this way to treat disorders including respiratory obstruction (especially pulmonary obstruction and/or lung inflammation, allergy (ies) and/or surfactant hypoproduction which are associated with a disease or condition selected from pulmonary vasoconstriction, inflammation, allergies, asthma, impeded respiration, respiratory distress syndrome (RDS), palinonary transplantation rejection, pulmonary disease (COPD), pulmonary transplantation rejection, pulmonary infections, bronchitis, and antisense oligonucleotides used in the exemplification of the process. and/or present invention the

T; 0 U; 0 Other; C; 2093 G; 2416 Sequence 9137 BP; 2510 A; 2118

Gaps ö Length 9137; ö 3; Score 19; DB 3 Pred. No. 0.32; Mismatche . 0 100.08; 100.08; Conservative Local Similarity les 19; Conser Query Match Matches

ö

4762 AATTATTGATTCTGTAGGT 19 4780 AATTATTGATTCTGTAGGT

엄

#2744

ઠે

ABZ96871 standard; DNA; 9137 BP RESULT 45 ABZ96871/

ABZ96871;

entry) (first 17-OCT-2003

acid sequence. Human nucleic

Human; antisense; lung dysfunction; nasal airway dysfunction; antiinflammatory; antiallergic; antiinflammatory; antiallergic; antiasthmatic; hypotensive; immunosuppressive; cytostatic; gene therapy; antisense gene therapy; respiratory; lung; adenosine sensitivity; adenosine receptor; bronchodilation; bronchoconstriction; lung allergy; lung inflammation; respiratory disease; ds. 

ношо варіепв.

WO200285308-A2.

31-OCT-2002

23-APR-2002; 2002WO-US013135

24-APR-2001; 2001US-0286137P

(EPIG-) EPIGENESIS PHARM INC

Aguilar Pabalan J, ŭ Katz Sandrasagra A, K , Shahabuddin S; Tang L, ς¥, 'S, Miller

Ä

WPI; 2003-229219/22

Pharmaceutical composition for treating ailments associated with impaired

```
specific gene(s) or its or non-glucocorticoid steroid or
igo(s) antisense to
and glucocorticoid
  respiration, has oligo(s) corresponding RNAs, and g
                                          ubiquinone
```

Disclosure; SEQ ID NO 12113; 872pp; English.

The invention relates to a novel pharmaceutical composition, which has a first active agent comprising an oligonucleotide antisense to the initiation codon, coding region, 5' or 3' end genomic flanking regions, 5' and 3' intron-exon junctions, or regions within 2-10 nucleotides of junctions of genes encoding a polypeptide associated with lung and/or nasal airway dysfunction and a second active agent comprising an antiinflammatory steroid and ubiquinone. A composition of the invention has antiinflammatory, antiallergic, antiasthmatic, hypotensive, immunosuppressive, and cytostatic activity. The composition may have a use in antisense gene therapy. The composition is useful for treating or preventing a respiratory, lung or malignant disease or condition, also for enhancing the prophylactic or therapeutic respiratory effect of an antiinflammatory steroid in a subject, for reducing or depleting levels of of, or reducing sensitivity to adenosine, reducing levels of adenosine receptor, producing bronchodilation, increasing levels of ubiquinone or lung surfactant in a subject, stissue, or treating bronchoconstriction, lung inflammation, lung allergies, or a respiratory disease or condition. Note: The sequence data for this patent is not represented in the printed specification, but was obtained in electronic format directly from WIPO.

"The sequence data for Lise aguences 

Sequence 9137 BP; 2510 A; 2118 C; 2093 G; 2416 T; 0 U; 0 Other;

Gaps ; 0 Length 9137; Indels °, 100.0%; Score 19; DB 10; 100.0%; Pred. No. 0.32; cive 0; Mismatches 0; . 0 Query Match Best Local Similarity 100. Matches 19; Conservative

В

ð

Search completed: April 26, 2005, 15:31:22 Job time : 443 secs

δ

Ñ

.rni

S ı

906

ŧ g

-61

-10

an

Н

```
1, Appli
2352, Ap
2352, Ap
3451, Ap
3452, Ap
69808, A
2056, Ap
15108, A
15108, A
15108, A
17416, A
27232, A
81772, A
122846,
130732,
160756,
4127, Ap
1645, Ap
1645, Ap
160756,
4127, Ap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Appli
Appli
                                                                                   tes/sec
                                                                                                                                                                                                                                                                                                                                                                                                     printed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                            ಹ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
Seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sequence
sequence
sequence
                                                                                                                                                                                                                                                                                                                                                                                        results predicted by chance to have to the score of the result being p of the total score distribution.
                                                                                  upda
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Descripti
                                                             Search time 136 Seconds (without alignments) 228.597 Million cell upo
                                                                                                                                                                                                                            2405568
                                                                                                                                                                                                                                                                                                    'ssued Patents NA:*
    /cgn2_6/ptodata/1/ina/5A_COMB.seq:*
    /cgn2_6/ptodata/1/ina/5B_COMB.seq:*
    /cgn2_6/ptodata/1/ina/6A_COMB.seq:*
    /cgn2_6/ptodata/1/ina/6B_COMB.seq:*
    /cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*
    /cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*
    /cgn2_6/ptodata/1/ina/backfiles1.seq:*
5.1.6
Compugen Ltd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-08-068-392-1
US-08-396-988-1
US-09-349-016-5005
US-09-248-796A-3451
US-09-248-796A-3451
US-09-248-796A-3452
US-09-248-796A-3452
US-09-248-796A-3452
US-09-248-796A-3452
US-09-949-016-69808
US-09-949-016-131798
US-09-949-016-13798
US-09-949-016-13798
US-09-949-016-13732
US-09-949-016-13732
US-09-949-016-122846
US-09-949-016-122846
US-09-949-016-122846
US-09-949-016-122846
US-09-949-016-122846
US-09-949-016-122846
US-09-949-016-122846
US-09-949-016-122846
US-09-949-016-122846
US-09-949-016-130732
US-09-949-016-130732
US-09-949-016-130732
US-09-348-796A-1645
US-09-177-776-110
US-09-177-776-110
                                                                                                                                                                                                                              er
                                                                                                                                                                                 esidues
                                                                                                                                                                                                                              ramet
                                                                                                                                                                                                                                                                                                                                                                                                                                     SUMMARIES
version
- 2005
                                         model
                                                                ••
                                                                                                                                                                                                                                                                                   summarie
                                                                                                                                                                                                                              ра
                                                                                                                                                            0
                                                              :31:33
                                                                                                                              Н
                                                                                                                                                                                   818138359
                                                                                                                                                              9
                                                                                                                                                                                                                             chosen
                                                                                                                             aattattgattctgtaggt
                                           3
GenCore (c) 1993
                                                                                                                                                              Gapext
                                          using
                                                                                                                                                                                                                                                                                                                                                                                                      n or equal analysis o
                                                               15
                                                                                                                                                                                                                                                                                  45
                                                                                                                                                                                                                                                   2000000000
                                                                                                                                                                                                                                                                                                                                                                                            of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WW444444444WW4444444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB
                                                                                                                                                                                                                             satisfying
                                                              2005,
                                                                                                                                                                                                                                                                                   first
                                                                                                                                                                                                                                                                                                                                                                                            number
                                                                                                        -619-906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1410
1780
1780
1780
2010
2010
2011
2011
3118
3118
3118
601
601
601
1131
11247
1509
                                                                                                                                                                                   seds,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                          ch,
           Copyright
                                                                                                                                                  OLIGO_NUC
Gapop_60.0
                                           sear
                                                                                                                                                                                                                                                                                                                                                                                                       than
                                                               26
                                                                                                                                                                                                                                                                                  Listing
                                                                                                                                                                                                                                                                                                                                                                                                      greater than
derived by
                                                                                                                                                                                   1202784
                                                                                                                                                                                                                                                  length:
length:
                                                                                                                                                                                                                                                                                                                                                                                            the
                                                                                                                                                                                                                                                                                                         Bue
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query
Match
                                                                                                       US-10-
19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           April
                                                                                                                                                                                                                             hits
                                          eic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ø
                                                                                                                                                                                                                                                                                                                                                                                              ω
                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                   126456
                                          nucl
                                                                                                                               Н
                                                                                                                                                                                                                                                                                    ••
                                                                                                                                                                                                                             of
                                                                                                                                                                                                                                                                                  Post-processing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NO.
                                                                                                                                                                                                                                                   seq
seq
                                                                                                                    score:
                                                                                                                                                                                                                                                                                                                                                                                          Pred. N
score g
and is
                                                                                                                                                   table
                                                                                                                                                                                                                             number
                                            •
                                                                                                                                                                                                                                                   DB
DB
                                          eic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ŝ
                                                                                                                                                                                                        size
                                                                                                                                                                                                                                                                                                         Database
                                                                                                                               Sequence
                                                                                                                                                                                   earched
                                                                                                        Title:
Perfect
                                                                                                                                                  Scoring
                                                                                                                                                                                                                                                    Minimum
                                                                                                                                                                                                                                                              Maximum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Result
No.
                                                                 ö
                                                                                                                                                                                                                              Total
                                                                                                                                                                                                         Word
                                                                Run
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0 000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0000
```

Ü

000000

U

```
.;
0
          Appli
                                                                                                                                     Appl
                                                                                   3, Apr
1080,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                              7, A<u>I</u>
3700,
                                                                                                                                             90
   ខាខា
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1410;
                                                                                                                                                                                                    US-08-068-392-1/c

i US-08-068-392-1/c

i Sequence 1, Application US/08068392

j Patent No. 6150152

j GENERAL INFORMATION:

APPLICANT: Shapiro, Steven M.

TITLE OF INVENTION: Human Macrophage Metalloproteinase

NUMBER OF SEQUENCES: 3

CORRESPONDENCE ADDRESS:

ADDRESSEE: Scott J. Meyer, Monsanto Co., A3SM

STREET: 800 N. Lindbergh Blvd.

CITY: St. Louis

STATE: Missouri

COUNTRY: USA

ZIP: 63167

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

MEDIUM TYPE: Ploppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                       COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/068,392
FILING DATE: 19930528
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Meyer, Scott J.
REGISTRATION NUMBER: 07-24(12406)A
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELEFHONE: (314)694-5435
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 1410 base pairs
TYPE: NUCLEIC ACID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
US-08-838-189D-25
US-08-852-344D-25
US-08-344-639E-25
US-08-467-963C-1
US-08-838-189D-1
US-08-852-344D-1
US-08-852-344D-1
US-08-467-963A-1
US-08-467-961A-1
US-08-617-961A-1
US-09-617-594A-3
US-09-617-594A-3
US-09-178-115-58
US-09-177-776-58
US-09-177-776-58
US-09-177-776-58
US-09-177-776-58
US-09-177-776-58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 19; DB 3;
Pred. No. 0.13;
; Mismatches
                                                                                                                                                                      GNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ·
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%;
    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              double
   Linear
cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CDS
1..1410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       l Similarity
19; Conserv
   733.7
733.7
733.7
733.7
733.7
733.7
733.7
733.7
733.7
733.7
733.7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME/KEY:
LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TOPOLOGY:
     Query Match
Best Local S
Matches 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-08-068-392
    RESULT
     0000000000
                                                                                                       000
                                                                                                                                      υU
```

343

361 AATTATTGATTCTGTAGGT

<del>Q</del>

ઠે

9

H

AATTATTGATTCTGTAGGT

us-10-619-906-5

```
USES THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-949-016-5005/c

US-09-949-016-5005/c

Sequence 5005, Application US/09949016

Patent No. 6812339

GENERAL INFORMATION:

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USE

FILE REFERENCE: CL001307

CURRENT APPLICATION NUMBER: US/09/949,016

CURRENT FILING DATE: 2000-04-14

PRIOR APPLICATION NUMBER: 60/241,755

PRIOR FILING DATE: 2000-10-20

PRIOR FILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-10-03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 1410;
  ALFLICANT: Shapiro, Steven M.

TITLE OF INVENTION: Human Macrophage Metalloproteinase NUMBER OF SEQUENCES: 3
CORRESPONDENCE ADDRESS:
ADDRESSEE: Scott J. Meyer, Monsanto Co., A3SM STREET: 800 N. Lindbergh Blvd.
CITY: St. Louis STATE: Missouri COUNTRY: USA
ZIP: 63167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .,
M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0.13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB
                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/396,988
FILING DATE: 01-MAR-1995
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/068,392
FILING DATE: 28-MAY-1993
ATTORNEY/AGENT INFORMATION:
NAME: Meyer, Scott J.
REGISTRATION NUMBER: 07-24(12406)A
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELEPHONE: (314)694-3117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 19; DB Pred. No. 0.1; Mismatches
                  Sequence 1, Application US/08396988
Patent No. 6204043
GENERAL INFORMATION:
APPLICANT: Shapiro, Steven M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 AATTATTGATTCTGTAGGT 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 100.0%;
Matches 19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEPHONE: (314)694-3117
TELEFAX: (314)694-5435
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 1410 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CDS
1..1410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRANDEDNESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MOLECULE TYPE:
-08-396-988-1/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME/KEY:
LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-08-396-988-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               <del>Q</del>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
```

```
GENERAL 196A-3451/c
; Sequence 3451, Application US/09248796A
; Sequence 3451, Application US/09248796A
; Patent No. 6747137
; GENERAL INFORMATION:
; APPLICANT: Keith Weinstock et al
; TITLE OF INVENTION: NUCLEIC ACID AND THERAPEUTICS
; TITLE OF INVENTION: FOR DIAGNOSTICS AND THERAPEUTICS
; TITLE OF INVENTION: FOR DIAGNOSTICS AND THERAPEUTICS
; FILE REFERENCE: 107196.132
; CURRENT APPLICATION NUMBER: US 60/074,725
; PRIOR APPLICATION NUMBER: US 60/096,409
; PRIOR APPLICATION NUMBER: US 60/096,409
; PRIOR FILING DATE: 1998-08-13
; NUMBER OF SEQ ID NOS: 28208
; SEQ ID NO 3451
                                                                                                                                                                                                                                                             RESULT 4

US-09-422-978-2352/C

Sequence 2352, Application US/09422978

Sequence 2352, Application US/09422978

Sequence 2352, Application US/09422978

Sequence 2352, Application US/09422978

SEQUENCEMAL INFORMATION:

APPLICANT: Cohen, Daniel

APPLICANT: Chumakov, Ilyan

TITLE OF INVENTION: Biallelic markers for use in constructing a high density...

FILE REFERENCE: GENSET 020CP1

CURRENT FILING DATE: 1999-04-21

CURRENT FILING DATE: 1999-04-21

EARLIER PILING DATE: 1998-11-23

EARLIER FILING DATE: 1998-11-23

EARLIER FILING DATE: 1998-04-21

NUMBER OF SEQ ID NOS: 11796

SEQ ID NO 2352

LENGTH: 47

THENCH: 47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                    ;
0
                                                                                                                                                                    Length 1780;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99-10570-107 : polymorphic base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ó:
                                                                                                                                                                                                     0
                                                                                                                                                                      4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ore 17; DB 4;
red. No. 2.1;
Mismatches
                                                                                                                                                                                      0.13;
                                                                                                                                                                       DB
                                                                                                                                                                                                       Mismatches
                                                                                                                                                                      Score 19;
Pred. No. (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 17;
Pred. No.
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FastSEQ for Windows Version
SEQ ID NO 5005
LENGTH: 1780
TYPE: DNA
                                                                                                                                                      100.0%; Sc
100.0%; P7
                                                                                                                                                                                                                                        1 AATTATTGATTCTGTAGGT 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity 100.0% 17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             21 TTATTGATTCTGTAGGT
                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: DNA
ORGANISM: Homo Sapiens
                                                                                                                                                                     Query Match
Best Local Similarity
Matches 19; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; NAME/KEY: allele
; LOCATION: 24
; OTHER INFORMATION:
US-09-422-978-2352
                                                                                                                    ; ORGANISM: Human
US-09-949-016-5005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local S
Matches 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            m
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                            d
                                                                                                                                                                                                                                           ò
```

```
Sequence 2056, Application US/09949016

Sequence 2056, Application US/09949016

GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CL001307
CURRENT APPLICATION NUMBER: 60/241,755
FILOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-0-08
PRIOR FILING DATE: 2000-0-08
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 2056

LENTH: 2070
                                                                 RESULT 8
US-09-949-016-69808/C
; Sequence 69808, Application US/09949016
; Patent No. 6812339
; GENERAL INFORMATION:
; TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
; TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THER
; FILE REFERENCE: CL001307
; CURRENT APPLICATION NUMBER: US/09/949,016
; CURRENT FILING DATE: 2000-04-14
; PRIOR FILING DATE: 2000-10-20
; PRIOR APPLICATION NUMBER: 60/231,768
; PRIOR FILING DATE: 2000-10-03
; PRIOR FILING DATE: 2000-09-08
; NUMBER OF SEQ ID NOS: 207012
; SOFTWARE: FREESEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 15;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 15;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   78.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.08;
                      354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2 ATTATTGATTCTGTA 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTGTA 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           249 ATTATTGATTCTGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
340 ATTATTGATTCTGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
Matches 15; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity
hes 15; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM: Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-949-016-69808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 9
US-09-949-016-2056
                                                                                                                                                                                                                                                                                                                                                                                              SEQ ID NO 69808
LENGTH: 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Ma
Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                  TO CANDIDA ALBICAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION:

GENERAL INFORMATION:

APPLICANT: Keith Weinstock et al

TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TC

TITLE OF INVENTION: FOR DIAGNOSTICS AND THERAPEUTICS

FILE REFERENCE: 107196.132

CURRENT APPLICATION NUMBER: US/09/248,796A

CURRENT FILING DATE: 1999-02-12

PRIOR APPLICATION NUMBER: US 60/074,725

PRIOR FILING DATE: 1998-02-13

PRIOR FILING DATE: 1998-08-13

NUMBER OF SEQ ID NOS: 28208

SEQ ID NO 3452

LENGTH: 1572
                                                                                                                                                                                                                                                                                                                                                   Ō
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Lodes, Michael J.
APPLICANT: Lodes, Michael J.
APPLICANT: Mohamath, Raodoh
APPLICANT: Mohamath, Robert A.
APPLICANT: Henderson, Darin R.
APPLICANT: Benson, Darin R.
APPLICANT: Secrist, Heather
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR
TITLE OF INVENTION: THE THERAPY AND DIAGNOSIS OF LUNG CANCER
FILE REFERENCE: 210121.475C10
CURRENT APPLICATION NUMBER: US/09/854,133
CURRENT FILING DATE: 2001-05-11
NUMBER OF SEQ ID NOS: 735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 1572;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 498;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                           Indels
                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ;
0
                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5.7;
                                                                                                         .1;
                                                                                             4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 15; DB Pred. No. 22; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 16; DB Pred. No. 5.7; Mismatches
                                                                                             B
                                                                                                                           Mismatches
                                                                                                            9
                                                                                           Score 16;
Pred. No.
                                                                                                                                                                                                                                              SSULT 6
3-09-248-796A-3452/c
Sequence 3452, Application US/09248796A
Patent No. 6747137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQ ID NOS: 735
SOFTWARE: FastSEQ for Windows Version
SEQ ID NO 345
LENGTH: 498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 345, Application US/09854133
Patent No. 6759508
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              78.9%; Sc.
100.0%; Pr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  84.2%; Sc.
100.0%; P.
                                                                                                                           ;
0
                                                                                             84.2%;
                                                                                                                                                              4 TATTGATTCTGTAGGT 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              45 rarrgarrcrgrager
                                                                                                                                                                                39 TATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Candida albicans
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                          albicans
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity 100. 16; Conservative
                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              , ORGANISM: Homo sapien US-09-854-133-345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
Matches 15; Conser
                                                                                                            Similarity
                        ; TYPE: DNA
; ORGANISM: Candida
US-09-248-796A-3451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; ORGANISM: Candidus US-09-248-796A-3452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-854-133-345
                                                                                                                           16;
            LENGTH: 597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: DNA ORGANISM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local
                                                                                            Query Match
Best Local
Matches
                                                                                               Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT
                                                                                                                                                                                                                                                    RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Б
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                              g
                                                                                                                                                                8
```

ö

Gaps

; 0

Indels

ö

Gaps

ö

Length 2070;

RESULT 10

2 ATTATTGATTCTGTA 16

118

```
RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     <del>Q</del>
                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             USES THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 11
US-09-949-016-13798

; Sequence 13798, Application US/09949016
; Patent No. 6812339
; GENERAL INFORMATION:
; TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USE;
; TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USE;
; FILE REFERENCE: CL001307
; CURRENT APPLICATION NUMBER: US/09/949,016
; CURRENT FILING DATE: 2000-04-14
; PRIOR FILING DATE: 2000-10-20
; PRIOR FILING DATE: 2000-10-03
; PRIOR FILING DATE: 2000-10-03
; PRIOR FILING DATE: 2000-09-08
; NUMBER OF SEQ ID NOS: 207012
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 13798
; LENGTH: 39318
                                                                                  ASSOCIATED
OF DETECTION AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 21125;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 39318;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
US-09-949-016-15108/c

; Sequence 15108, Application US/09949016
; Patent No. 6812339
; GENERAL INFORMATION:
; APPLICANT: VENTER, J. Craig et al.
; TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES
; TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS
; FILE REFERENCE: CL001307
                                                                                                                                                                                                                                                                                                                                                                                                                                                      4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 15; DB; Pred. No. 16; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                         CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR FILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 15;
Pred. No
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9015 TATTGATTCTGTAGG 9001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               78.9%;
100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    78.9%;
                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY: misc_feature
LOCATION: (1)...(21125)
OTHER INFORMATION: n = A,T,C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATTGATTCTGTAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2249 ATTATTGATTCTGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  similarity 100 15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                      ORGANISM: Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; ORGANISM: Human
US-09-949-016-13798
                                                                                                                                                                                                                                                                                        SEQ ID NO 15108
LENGTH: 21125
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local S
Matches 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DNA
                                                                                                                                                                                                                                                                                                                        TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
```

RESULT 12 , US-09-949-016-17416/c

```
SEQUENCES RELATING TO STAPHYLOCOCCUS
                                                                                                       THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                ASSOCIATED
OF DETECTION AND USES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 250, Application US/09134001C

Sequence 250, Application US/09134001C

GENERAL INFORMATION:

APPLICANT: Lynn Doucette-Stamm et al

TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO

TITLE OF INVENTION: EPIDERMIDIS FOR DIAGNOSTICS AND THERAPEUTICS

FILE REFERENCE: GTC-007

CURRENT APPLICATION NUMBER: US/09/134,001C

CURRENT FILING DATE: 1998-08-13

PRIOR APPLICATION NUMBER: US 60/064,964

PRIOR FILING DATE: 1997-11-08

PRIOR FILING DATE: 1997-11-08

PRIOR FILING DATE: 1997-08-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 14
US-09-615-192A-357
; Sequence 357, Application US/09615192A
; Patent No. 6410718
; GENERAL INFORMATION:
; APPLICANT: Bloksberg, Leonard N.
; APPLICANT: Havukkala, Ilkka
; TITLE OF INVENTION: Materials and Methods for the
; TITLE OF INVENTION: Modification of Plant Lignin Content
; FILE REFERENCE: 11000.1003c4U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length
Sequence 17416, Application US/09949016

Patent No. 6812339

GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF FILE REFERENCE: CLO01307
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR FILING DATE: 2000-10-20
PRIOR FILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 17416
LENGTH: 51161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 3;
78;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      red. No. 16;
Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; ORGANISM: Staphylococcus epidermidis
US-09-134-001C-250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pred
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pred
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        73.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3 TTATTGATTCTGTA 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3 TTATTGATTCTGTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 100
Matches 15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTATTGATTCTGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQ ID NOS
EQ ID NO 250
LENGTH: 315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity 14; Conser
                                                                                                                                                                                                                                                                                                                                                                                          ; ORGANISM: Human
US-09-949-016-17416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -09-134-001C-250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: DNA ORGANISM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local
Matches
```

S

```
THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                    THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ·.
                                                                                                                  ·.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 18
US-09-949-016-122846/C
US-09-949-016-122846, Application US/09949016

; Sequence 122846, Application US/09949016
; Patent No. 6612339
; GENERAL INFORMATION:
    TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
; TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THER
; TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THER
; FILE REFERENCE: CL001307
; CURRENT APPLICATION NUMBER: 60/241, 755
; FRIOR FILING DATE: 2000-04-14
; PRIOR FILING DATE: 2000-10-03
; PRIOR APPLICATION NUMBER: 60/231, 498
; PRIOR FILING DATE: 2000-10-03
                                                                                                                                                                                                                                                                                                                                                                                 ASSOCIATED
OF DETECTION AND USES
                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 601;
                                                                            Length 601;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length
                                                                                                                                                                                                                                               RESULT 17
US-09-949-016-81772, Application US/09949016
; Sequence 81772, Application US/09949016
; Patent No. 6812339
; GENERAL INFORMATION:
; TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF
; TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF
; TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF
; FILE REFERENCE: CL001307
; CURRENT FILING DATE: 2000-04-14
; PRIOR APPLICATION NUMBER: 60/241,755
; PRIOR PILING DATE: 2000-10-20
; PRIOR PILING DATE: 2000-10-03
; PRIOR FILING DATE: 2000-10-03
; NUMBER OF SEQ ID NOS: 207012
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 81772
: LENGTH: 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                   ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4
                                                                              4
                                                                           Score 14; DB 4
Pred. No. 75;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           14;
No
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score
Pred.
                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         73.78;
                                                                            73.78;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          73.78;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 AATTATTGATTCTG 14
                                                                                                                                                              1 AATTATTGATTCTG 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                               Similarity 100
14; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               506 AATTATTGATTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               , ORGANISM: Human
US-09-949-016-81772
      ; TYPE: DNA
; ORGANISM: Human
US-09-949-016-27232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                               Query Match
Best Local &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TO ACINETOBACTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              USES THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 15
US-09-328-352-3288
i Sequence 3288, Application US/09328352
j Patent No. 6562958
j GENERAL INFORMATION:
i APPLICANT: Gary L. Breton et al.
i TITLE OF INVENTION: BAUMANNII FOR DIAGNOSTICS AND THERAPEUTICS
j FILE REFERENCE: GTC99-03PA
i CURRENT APPLICATION NUMBER: US/09/328,352
i CURRENT FILING DATE: 1999-06-04
j NUMBER OF SEQ ID NOS: 8252
j SEQ ID NO 3288
i LENGTH: 594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ō
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 27232, Application US/09949016
Patent No. 6812339
GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND FILE REPERENCE: CL001307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                               Length 373;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4
                                                                                                                                                                                                                                                                                                                             DB 3;
78;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 14; DB; Pred. No. 75; 0; Mismatches
CURRENT APPLICATION NUMBER: US/09/615,192A
CURRENT FILING DATE: 2000-07-12
PRIOR APPLICATION NUMBER: US 08/975,316
PRIOR FILING DATE: 1997-11-21
PRIOR APPLICATION NUMBER: US 08/713,000
PRIOR FILING DATE: 1996-09-11
PRIOR FILING DATE: 1998-10-09
PRIOR FILING DATE: 1998-10-09
NUMBER OF SEQ ID NOS: 405
SOFTWARE: FastSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR FILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 27232
                                                                                                                                                                                                                                                                                                                                                  red. No. 78
Mismatches
                                                                                                                                                                                                                                                                                                                               Score 14;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; TYPE: DNA
; ORGANISM: Acinetobacter baumannii
US-09-328-352-3288
                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    73.7%;
                                                                                                                                                                                                                                                                                                                               73.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        106 rrarrgarrcrera 119
                                                                                                                                                                                                                                                                    ORGANISM: Eucalyptus grandis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    16
                                                                                                                                                                                                                                                                                                                                                                                                               2 ATTATTGATTCTGT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       . Similarity 100.
14; Conservative
                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                344 ATTATTGATTCTGT
                                                                                                                                                                                                                                                                                                                                                  Local Similarity
nes 14; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-949-016-27232/c
                                                                                                                                                                                                                                                                                        US-09-615-192A-357
                                                                                                                                                                                                SEQ ID NO 357
TENGTH: 373
                                                                                                                                                                                                                                                  DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local
                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                     Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT
```

g

8

ઠે

В

```
73.7%; Scc
100.0%; Pi
                                                                                                                                                                                                                                                                                                                                                                    ;
                                                                                                                                                                                                                                                                                                                                       73.7%;
100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION NUMBER: US
PRIOR FILING DATE: 1998-08-13
NUMBER OF SEQ ID NOS: 28208
SEQ ID NO 1645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      600
                                                                                                                                                                                                                                                                                            ; ORGANISM: Proteus mirabilis US-09-543-681A-4127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TATTGATTCTGTAG 17
                                                                                                                                                                                                                                                                                                                                                                                                  1 AATTATTGATTCTG 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Candida albicans
                                                                                                                                                                                                                                                                                                                                                     Similarity 100
14; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity 100
14; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                   717 AATTATTGATTCTG
    57 AATTATTGATTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TATTGATTCTGTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; ORGANISM: Candi
US-09-248-796A-1645
                                                                                                                                                                                                                                                                                                                                                                   14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local S
Matches 14
                                                                                                                                                                                                                                                                                 DNA
                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                       Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LENGTH:
                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT
US-09-2
                                             RESULT
                                                                                                                                                                                                                                                                                                                                                        Best
                                                                                                                                                                                                                                                                                                                                                                                                                               D
D
                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      В
                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                 Gaps
                                                                                                                                                                                                                       USES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-949-016-160756/c

i Sequence 160756, Application US/09949016

patent No. 6812339

j GENERAL INFORMATION:

i TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES

FILE REFERENCE: CL001307

CURRENT APPLICATION NUMBER: US/09/949,016

CURRENT FILING DATE: 2000-04-14

PRIOR APPLICATION NUMBER: 60/241,755

PRIOR FILING DATE: 2000-10-20

PRIOR FILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SOFTWARE: FastSEQ for Windows Version 4.0

LEMANT. 60756
                                                                                                                                                                                                       ASSOCIATED
OF DETECTION AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 601;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length
                                                                                                                                        Sequence 130732, Application US/09949016
; Patent No. 6812339
; GENERAL INFORMATION:
; APPLICANT: VENTER, J. Craig et al.
; TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF; FILE REFERENCE: CL001307
; CURRENT APPLICATION NUMBER: US/09/949,016
; CURRENT FILING DATE: 2000-04-14
; PRIOR APPLICATION NUMBER: 60/241,755
; PRIOR FILING DATE: 2000-10-20
; PRIOR FILING DATE: 2000-10-03
; PRIOR APPLICATION NUMBER: 60/231,498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ô
                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 4;
75;
 ed. No. 75;
Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 14; DB; Pred. No. 75; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                 PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 130732
LENGTH: 601
 Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 14;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           73.7%; Sc.
100.0%; Pr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              73.7%; Sc.
100.0%; Pi
             0;
Similarity 100.0%;
14; Conservative
                                                                       421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           421
                                           1 AATTATTGATTCTG 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 AATTATTGATTCTG 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 AATTATTGATTCTG 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity 100
14; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity 100 14; Conservative
                                                             434 AATTATTGATTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              434 AATTATTGATTCTG
                                                                                                                RESULT 19
US-09-949-016-130732/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-949-016-130732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; ORGANISM: Human
US-09-949-016-160756
                                                                                                                                                                                                                                                                                                                                                                                                                                             Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local S
Matches 14
                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM:
Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE:
                                                                                                                 RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT
                                           Š
                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Б
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
```

```
MIRABIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CANDIDA ALBICANS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CANDIDA ALBICANS
                                                                                                                      PROTEUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 23
US-09-248-796A-4531
; Sequence 4531, Application US/09248796A
; Patent No. 6747137
; GENERAL INFORMATION:
; APPLICANT: Keith Weinstock et al
; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO
; TITLE OF INVENTION: FOR DIAGNOSTICS AND THERAPEUTICS
; FILLE REFERENCE: 107196.132
; CURRENT APPLICATION NUMBER: US/09/248,796A
                                                                                                                      5
F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AMINO ACID SEQUENCES RELATING TO AND THERAPEUTICS
                                                                                                                    AMINO ACID SEQUENCES RELATING THERAPEUTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 900;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 987;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ·
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  °
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 14; DB 4;
Pred. No. 73;
; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 4;
US-09-543-681A-4127
; Sequence 4127, Application US/09543681A
; Patent No. 6605709
; GENERAL INFORMATION:
; APPLICANT: GARY BRETON
; TITLE OF INVENTION: NUCLEIC ACID AND AMINO AC
; TITLE OF INVENTION: DIAGNOSTICS AND THERAPEU
; FILE REFERENCE: 2709.1002-001
; CURRENT APPLICATION NUMBER: US/09/543,681A
; CURRENT FILING DATE: 1999-04-05
; PRIOR FILING DATE: 1999-04-09
; NUMBER OF SEQ ID NOS: 8344
; SEQ ID NO 4127
; LENGTH: 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-248-796A-1645/c

US-09-248-796A-1645/c

Sequence 1645, Application US/09248796A

Patent No. 6747137

GENERAL INFORMATION:

APPLICANT: Keith Weinstock et al

TITLE OF INVENTION: NUCLEIC ACID AND AMINO AC

TITLE OF INVENTION: FOR DIAGNOSTICS AND THER

FILE REFERENCE: 107196.132

CURRENT APPLICATION NUMBER: US/09/248,796A

CURRENT FILING DATE: 1999-02-12

PRIOR APPLICATION NUMBER: US 60/074,725

PRIOR FILING DATE: 1998-02-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   60/096,409
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pred
```

.rni

us-10-619-906-5

7

```
RESULT 26
US-09-134-000C-2709/c
is Sequence 2709, Application US/09134000C
; Patent No. 6617156
; GENERAL INFORMATION:
; APPLICANT: Lynn Doucette-Stamm et al
; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO
; TITLE OF INVENTION: ENTEROCOCCUS FAECALIS FOR DIAGNOSTICS AND THERAPEUTICS
; FILE REFERENCE: 032796-032
; CURRENT APPLICATION NUMBER: US/09/134,000C
; CURRENT FILING DATE: 1998-08-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 1247;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indele
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 3;
                                                                                                                                                                    RESULT 25

US-09-177-76-110/c

ISCACLE 10, Application US/09177776A

Patent No. 6297051

GENERAL INFORMATION:

APPLICANT: Zavada, Jan

APPLICANT: Pastorekova, Silvia

APPLICANT: Postorek, Jaromir

FILLE REFERENCE: D-0021.54

CURRENT PRILING DATE: 1998-10-23

EARLIER PRILING DATE: 1995-06-07

EARLIER PRILING DATE: 1995-06-07

EARLIER PRILING DATE: 1995-06-07

EARLIER PILING DATE: 1993-00-21

EARLIER PILING DATE: 1992-00-21

EARLIER PILING DATE: 1993-00-21

EARLIER PIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 14; DB
Pred. No. 72;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    73.7%; Sc.
100.0%; P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2 ATTATTGATTCTGT 15
                            ATTATTGATTCTGT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      L Similarity 100 14; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            810 ATTATTGATTCTGT
                                                              810 ATTATTGATTCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (1)..(1247)
US-09-177-776-110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM: HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local S
Matches 14
                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 1247;
                                                                                                                                                                                                                                                                                                                                             Length 1131;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;
0
                                                                                                                                                                                                                                                                                                                                                                                                    .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ო
•
                                                                                                                                                                                                                                                                                                                                                4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ore 14; DB 3 red. No. 72; Mismatches
                                                                                                                                                                                                                                                                                                                                           DB ,
                                                                                                                                                                                                                                                                                                                                          Score 14; DB
Pred. No. 72;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-178-115-110/C
Sequence 110, Application US/09178115
Sequence 110, Application US/09178115
Sequence 110, E297041
GENERAL INFORMATION:
APPLICANT: Zavada, Jan
APPLICANT: PASTOTEKOVA, Silvia
APPLICANT: PASTOTEKOVA, Silvia
APPLICANT: PASTOTEK, Jaromir
TITLE OF INVENTION: MN Gene and Protein
FILE REFERENCE: D-0021.5A
CURRENT APPLICATION NUMBER: US/09/178,115
CURRENT FILING DATE: 1998-10-23
EARLIER APPLICATION NUMBER: 08/787,739
EARLIER FILING DATE: 1997-01-24
EARLIER FILING DATE: 1995-06-07
EARLIER PILING DATE: 1995-06-07
EARLIER FILING DATE: 1995-06-07
EARLIER PILING DATE: 1999-06-07
CURRENT FILING DATE: 1999-02-12

PRIOR APPLICATION NUMBER: US 60/074,725

PRIOR FILING DATE: 1998-02-13

PRIOR FILING DATE: 1998-08-13

PRIOR FILING DATE: 1998-08-13

NUMBER OF SEQ ID NOS: 28208

SEQ ID NO 4531

LENGTH: 1131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        73.7%; SU
100.0%; Pi
0;
                                                                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EARLIER APPLICATION NUMBER: PV-EARLIER FILING DATE: 1992-03-11 NUMBER OF SEQ ID NOS: 116
                                                                                                                                                                                                                                                                                                                                           73.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 AATTATTGATTCTG 14
                                                                                                                                                                                                                                                        ; ORGANISM: Candida albicans US-09-248-796A-4531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity 100
14; Conservative
                                                                                                                                                                                                                                                                                                                                                                          Similarity 100 14; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AATTATTGATTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; NAME/KEY: misc_feature; LOCATION: (1)..(1247) US-09-178-115-110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PatentIn Ver.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: DNA
ORGANISM: HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SULT 24
-09-178-115-110/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ID NO 110
ENGTH: 1247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local S
Matches 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        354
                                                                                                                                                                                                                                 TYPE: DNA ORGANISM:
                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                            Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT
                                                                                                                                                                                                                                                                                                                                                                               Best
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
```

ö

Gaps

.; 0

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGAINST
                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                  DU, Run-Pan

EWASYSHYN, Mary E

VENTION: MULTIMERIC HYBRID GENE ENCODING A

IVENTION: CHIMERIC PROTEIN WHICH CONFERS PROTECTION

IVENTION: PARAINFLUENZA VIRUS AND RESPIRATORY SYNCYT
                                                                                                                                                                                                        ;
0
                                                                                                                                                                         Length 1509;
                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Version #1.30
                                                                                                                                                                                                        ö
                                                                                                                                                                        4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       E: Sim & McBurney
6th Floor, 330 University Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1038-474 MIS:jb
                                                                                                                                                                         DB
                                                                                                                                                                                         red. No. /I
Mismatches
                                                                                                                                                                       Score 14;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 08/838,189
FILING DATE: 16-APR-1997
APPLICATION NUMBER: US 08/001,554
FILING DATE: 06-JAN-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: GB 9200117.1
FILING DATE: 06-JAN-1992
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 14;
Pred. No
    60/055,778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US/08/467,963C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                   US-08-467-963C-25/c
; Sequence 25, Application US/08467963C
; Patent No. 5968776
; GENERAL INFORMATION:
; APPLICANT: KLEIN, Michel H
; APPLICANT: DU, Run-Pan
; APPLICANT: EWASYSHYN, Mary E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  73.7%; Sc.
100.0%; P
                                                                                                                                                                                                     ·.
                                                                                                                   ; ORGANISM: Enterococcus faecalis US-09-134-000C-2709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                24,973
PRIOR APPLICATION NUMBER: US 60/
PRIOR FILING DATE: 1997-08-15
NUMBER OF SEQ ID NOS: 6812
SOFTWARE: Patentin version 3.1
SEQ ID NO 2709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELECOMMUNICATION INFORMATION: TELEPHONE: (416) 595-1155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEPHONE: (416) 595-1155
TELEFAX: (416) 595-1163
INFORMATION FOR SEQ ID NO: 25:
SEQUENCE CHARACTERISTICS:
LENGTH: 1617 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                      73.78;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CITY: Toronto
STATE: Ontario
COUNTRY: Canada
ZIP: MSG 1R7
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                       TTGATTCTGTAGGT 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME: STEWART, Michael
REGISTRATION NUMBER: 24
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE OF INVENTION: MULTITLE OF INVENTION: CHINTITLE OF INVENTION: PARLINUMBER OF SEQUENCES: 38
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                     46 TTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER:
FILING DATE:
CLASSIFICATION:
                                                                                                                                                                                    . Similarity
14; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADDRESSEE:
STREET: 6t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; TOPOLOGY:
US-08-467-963C-25
                                                                                                                                                                   Query Match
Best Local S
Matches 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local S
Matches 14
                                                                                                    TYPE: DNA
                                                                                                                                                                                                                                        φ
                                                                                                                                                                                                                                                                                                                       RESULT
                                                                                                                                                                                                                                                                     d
                                                                                                                                                                                                                                        ð
```

```
0
                                                                                                                                                                                  APPLICANT: KLEIN, Michel H
APPLICANT: Tun-Pan
APPLICANT: DU, Run-Pan
APPLICANT: EWASYSHYN, Mary E
TITLE OF INVENTION: MULTIMERIC HYBRID GENE ENCODING A
TITLE OF INVENTION: CHIMERIC PROTEIN WHICH CONFERS PROTECTION AGAINST
TITLE OF INVENTION: PARAINFLUENZA VIRUS AND RESPIRATORY SYNCYTIAL VIRUS
NUMBER OF SEQUENCES: 38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
APPLICANT: KLEIN, Michel H
APPLICANT: DU, Run-Pan
APPLICANT: EWASYSHYN, Mary E
TITLE OF INVENTION: CHIMERIC PROTEIN WHICH CONFERS PROTECTION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 1617;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/838,189D
FILING DATE: 16-APR-1997
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US 08/001,554
FILING DATE: 06-JAN-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: GB 9200117.1
FILING DATE: 06-JAN-1992
ATTORNEY/AGENT INFORMATION:
NAME: STEWART, Michael I
REGISTRATION NUMBER: 24,973
REFERENCE/DOCKET NUMBER: 1038-687 MIS:jb
TELECOMMUNICATION INFORMATION:
TELEPHONE: (416) 595-1155
TELEPHONE: (416) 595-1163
INFORMATION FOR SEQ ID NO: 25:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2;
                                                                                                                                                                                                                                                                                                                                           1: Sim & McBurney
6th Floor, 330 University Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 14; DB
Pred. No. 70;
0; Mismatches
                                                                                                         Sequence 25, Application US/08838189D
Sequence 25, Application US/08838189D
Patent No. 5998169
GENERAL INFORMATION:
APPLICANT: KLEIN, Michel H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            :-08-852-344D-25/c
Sequence 25, Application US/08852344D
Patent No. 6017539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         73.7%; SC. 100.0%; P. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                    ZIP: M5G 1R7
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   787 rrarrgarrcrgra 774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity 100
14; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: nucleic acid STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                            ADDRESS
                                                                                                                                                                                                                                                                                                    NUMBER OF SEQUENCES:
CORRESPONDENCE ADDRES
ADDRESSEE: Sim & N
                                                                                                                                                                                                                                                                                                                                                                                              STATE: Ontario
COUNTRY: Canada
ZIP: M5G 1R7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                linear
                                                                                                                                                                                                                                                                                                                                                                                  Toronto
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; TOPOLOGY:
US-08-838-189D-25
                                                                                                                                                                                                                                                                                                                                                             STREET:
                                   787
m
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT
US-08-8
                                                                                             RESULT
                                   Б
  ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
```

ö

**;** 

Indels

·;

Mismatches

Similarity 100 14; Conservative

Length 1617;

g

Mon

```
FILING DATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-08-344-639E-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        787
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 31
US-08-467-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 30
US-08-344-639E-25/c
i Sequence 25, Application US/08344639E
j Patent No. 6033668
j GENERAL INFORMATION:
    APPLICANT: Klein, Michel H
    APPLICANT: Ewasyshyn, Mary E
    TITLE OF INVENTION: CHIMERIC PROTEIN WHICH CONFERS
    TITLE OF INVENTION: PROTECTION AGAINST PARAINFLUENZA VIRUS
    TITLE OF INVENTION: AND RESPIRATORY SYNCYTIAL VIRUS
    NUMBER OF SEQUENCES: 38
    CORRESPONDENCES: 38
    CORRESPONDENCES: 38
       AGAINST PARAINFLUENZA VIRUS AND RESPIRATOR SYNCYTIAL VIRUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 1617;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indel
                                                                                                                                                                      ZIP: MSG 1R/
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/852,344D
FILING DATE: 07-MAY-1997
CLASSIFICATION NUMBER: US 08/344,639
FILING DATE: 14-NOV-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: GB 9200117.1
FILING DATE: 06-JAN-1992
ATTORNEY/AGENT INFORMATION:
NAME: STEWART, Michael I
REGISTRATION NUMBER: 24,973
REFERENCE/DOCKET NUMBER: 24,973
TELEPHONE: (416) 595-1155
TELEPHONE: (416) 595-1163
INFORMATION FOR SEQ ID NO: 25:
SEQUENCE CHARACTERISTICS:
TEMPORATION FOR SEQ ID NO: 25:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PatentIn Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
TITLE OF INVENTION: SILLINGER OF SEQUENCES: 37
CORRESPONDENCE ADDRESS:
ADDRESSEE: Sim & McBurney
ADDRESSEE: 6th Floor, 330 University Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 3;
70;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 14; DB Pred. No. 70; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       6th
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PE: Floppy disk .
IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    330 University Avenue,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   73.7%; 5c~
100.0%; Pi
0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sim & McBurney
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1617 base pairs
nucleic acid
EDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3 TTATTGATTCTGTA 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTATTGATTCTGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COUNTRY: Canada
ZIP: MSG 1R7
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRANDEDNESS: Bir
                                                                                                                                : Ontario
RY: Canada
MSG 1R7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Similarity
| 14; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STREET: 330 Un
CITY: Toronto
STATE: Ontario
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ontario
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER:
OPERATING
SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-08-852-344D-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STATE: O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        787
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
```

```
Sequence 1, Application US/08467963C
Sequence 1, Application US/08467963C
Patent No. 5968776
GENERAL INFORMATION:
APPLICANT: KLEIN, Michel H
APPLICANT: EWASYSHYN, Mary E
TITLE OF INVENTION: MULTIMERIC HYBRID GENE ENCODING A
TITLE OF INVENTION: CHIMERIC PROTEIN WHICH CONFERS PROTECTION AGAINST
TITLE OF INVENTION: PARAINFLUENZA VIRUS AND RESPIRATORY SYNCYTIAL VIRUS
NUMBER OF SEQUENCES: 38
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 1617;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/467,963C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 3;
70;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3: Sim & McBurney
6th Floor, 330 University Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                       1038-391 MIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 14;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TUMBER: US 08/838,189
16-APR-1997
TUMBER: US 08/001,554
06-JAN-1993
 US/08/344,639E
                                                                                                              06-JAN-1992
N: 424
                                                                  JMBER: US 08/001,554
06-JAN-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MBER: GB 9200117.1
06-JAN-1992
                                                                                                                                    APPLICATION NUMBER: GB 9200117
FILING DATE: 06-JAN-1992
CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: Stewart, Michael I
REGISTRATION NUMBER: 24,973
REFERENCE/DOCKET NUMBER: 1038
TELEPHONE: (416) 595-1155
TELEPHONE: (416) 595-1163
TELEX: 065-24567 SIMBAS
INFORMATION FOR SEQ ID NO: 25:
SEQUENCE CHARACTERISTICS:
LENGTH: 1617 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       73.78;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Floppy disk
           14-NOV-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TTATTGATTCTGTA 16
                                                 PRIOR APPLICATION DATA:
APPLICATION NUMBER: US
FILING DATE: 06-JAN-19
CLASSIFICATION: 424
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STREET: 6th Floor, 33(CITY: Toronto STATE: Ontario COUNTRY: Canada ZIP: MSG 1R7 COMPUTER READABLE FORM: MEDIUM TYPE: Floppy d:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE: 16-APR-APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                  nucleic acid
IDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PPLICATION NUMBER:
APPLICATION NUMBER:
FILING DATE: 14-NO
CLASSIFICATION: 42
                                                                                                                                                                                                                                                                                                                                                                                                         STRANDEDNESS: BIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
Matches 14; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CLASSIFICATION:
```

; 0 us-10-619-906-5.rni

```
STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MOLECULE TYPE:
       US-08-838-189D-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-08-852-344D-1
                                                                                                                                                                                                                                                                                           APPLICANT: APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             14;
                                                                                                                                                 970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local S
Matches 14
                                           Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    970
                                                                                                                                                                                                       RESULT
                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 1, Application US/08838189D
Sequence 1, Application US/08838189D
Patent No. 5998169
GENERAL INFORMATION:
APPLICANT: KLEIN, Michel H
APPLICANT: DU, Run-Pan
APPLICANT: EWASYSHYN, Mary E
TITLE OF INVENTION: MULTIMERIC PROTEIN WHICH CONFERS PROTECTION AGAINST
TITLE OF INVENTION: PARAINFLUENZA VIRUS AND RESPIRATORY SYNCYTIAL VIRUS
NUMBER OF SEQUENCES: 38
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                            Length 1844;
                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADDRACE
STREET: 0.
STREET: 0.
STREET: 0.
STREET: Ontaxio
COUNTRY: Canada
ZIP: MSG IR7
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/838,189D
FILING DATE: 16-APR-1997
FILING DATE: 16-APR-1997
FILING DATE: 06-JAN-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/001,554
FILING DATE: 06-JAN-1992
ATTORNEY/AGENT INFORMATION:
AMBE: STEMART, Michael I
REGISTRATION NUMBER: 24,973
REFERENCE/DOCKET NUMBER: 1038-687 MIS:jb
TELEPHONE: (416) 595-1155
TELEPHONE: (416) 595-1155
TELEPHONE: CHARACTERISTICS:
LENGTH: 1844 base pairs
''DE: nuncleic acid
'''NNESS: single
'''NNESS: single
'''NNESS: single
'''NNESS: single
                                                                                                                                                                                                                                                                                                                                ö
ATTORNEY/AGENT INFORMATION:

NAME: STEWART, Michael I

REGISTRATION NUMBER: 24,973

REFERENCE/DOCKET NUMBER: 1038-474 MIS:jb

TELECOMMUNICATION INFORMATION:

TELEPHONE: (416) 595-1155

TELEFAX: (416) 595-1163

INFORMATION FOR SEQ ID NO: 1:

SEQUENCE CHARACTERISTICS:

LENGTH: 1844 base pairs
                                                                                                                                                                                                                                                                                         DB 70;
                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                          Score 14;
Pred. No.
                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                         73.7%;
                                                                                                                                                                                                                                       DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                   970 TTATTGATTCTGTA 957
                                                                                                                                                            I: 1844 base pairs
nucleic acid
EDNESS: single
                                                                                                                                                                                                                                                                                                                                                                 3 TTATTGATTCTGTA 16
                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                    linear
                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
Matches 14; Conser
                                                                                                                                                                                               STRANDEDNESS:
                                                                                                                                                                                                                   ; TOPOLOGY: 1:
; MOLECULE TYPE:
US-08-467-963C-1
                                                                                                                                                                                  TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT
                                                                                                                                                                                                                                                                                                                                                                                                  D
D
                                                                                                                                                                                                                                                                                                                                                                 ö
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .
0
                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                  4 CONFERS PROTECTION VIRUS AND RESPIRATORY
                                      ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
           Length 1844;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 1844;
                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ;
0
           2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 3;
70;
                        70;
                                                                                                                                                                                                                                                                  PARAINFLUENZA V
                                                                                                                                                                                                                                                                                                                                         3: Sim & McBurney
6th Floor, 330 University Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         24,973
IR: 1038-688 MIS:jb
           DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: Patentin Release #1.0, Vers
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/852,344D
FILING DATE: 07-MAY-1997
CLASSIFICATION: 424
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/344,639
FILING DATE: 14-NOV-1994
           Score 14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              · APPLICATION NUMBER: GB 9200117.1 FILING DATE: 06-JAN-1992 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                             1: Floppy disk
IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                          3-08-852-344D-1/c
Sequence 1, Application US/08852344D
Patent No. 6017539
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 34
US-08-344-639E-1/c
; Sequence 1, Application US/08344639E
                                                                                                                                                                                                                                  DU, Run-Pan
EWASYSHYN, Mary E
NVENTION: CHIMERIC PR
NVENTION: AGAINST PAR
NVENTION: SYNCYTIAL V
73.7%; Sc.
100.0%; P.
0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELECOMMUNICATION INFORMATION:
TELEPHONE: (416) 595-1155
TELEFAX: (416) 595-1163
INFORMATION FOR SEQ ID NO: 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    73.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (genomic)
                                                                                                                                                                                                                      Michel H
                                                                    16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME: STEWART, Michael
REGISTRATION NUMBER: 24
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTATTGATTCTGTA 16
                                                                                                                                                                                                                                                                                                                                                                    CITY: Toronto
STATE: Ontario
COUNTRY: Canada
ZIP: M5G 1R7
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy di
                       Similarity 100
14; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               nucleic acid
sDNESS: single
                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES:
CORRESPONDENCE ADDRESS
ADDRESSEE: Sim & MCI
STREET: 6th Floor,
                                                                                                                                                                                                                                                 APPLICANT: EWASYSHYN
TITLE OF INVENTION:
TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OPERATING SYSTEM:
SOFTWARE: Patent
                                                                                                                                                                                                                       KLEIN,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
```

.rni

```
APPLICATION NUMBER: US/08/467,961A FILING DATE: 06-JUN-1995 CLASSIFICATION: 435
STATE: Ontario
COUNTRY: Canada
ZIP: M5G 1R7
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                         SOFTWARE: Patentin Release #1.0, CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1: Floppy disk
IBM PC compatible
YSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .,
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       73.78;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   970 TTATTGATTCTGTA 957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1844 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTATTGATTCTGTA 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               nucleic acid
EDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY: Canada
ZIP: M5G 1R7
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ontario
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; TOPOLOGY: li
; MOLECULE TYPE:
US-08-467-969A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRANDEDNESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STREET:
CITY: T
STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local S
Matches 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                          VIRUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 1844;
             GENERAL INFORMATION:

GENERAL INFORMATION:

APPLICANT: Klein, Michel H

APPLICANT: Du, Run-Pan

APPLICANT: Ewasyshyn, Mary E

TITLE OF INVENTION: CHIMERIC PROTEIN WHICH CONFERS

TITLE OF INVENTION: PROTECTION AGAINST PARAINFLUENZA VIR

TITLE OF INVENTION: AND RESPIRATORY SYNCYTIAL VIRUS

NUMBER OF SEQUENCES: 38

CORRESPONDENCE ADDRESS:

ADDRESSEE: Sim & McBurney

STREET: 330 University Avenue, 6th Floor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                       ADDKESSEE: SAW & PRODUCTOR
CITY: TOTOTO
CITY: TOTOTO
STATE: Ontario
COUNTRY: Canada
ZIP: MSG 1R7
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/344,639E
FILING DATE: 14-NOV-1994
CLASSIFICATION: 424
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/001,554
FILING DATE: 06-JAN-1993
CLASSIFICATION NUMBER: GB 9200117.1
FILING DATE: 06-JAN-1992
CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: Stewart, Michael I
REGISTRATION NUMBER: 24,973
REFERENCE/DOCKET WUMBER: 1038-391 MIS
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sim & McBurney
330 University Avenue, 6th Floor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 14; DB; Pred. No. 70; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Immunogens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 35
US-08-467-969A-1/C
; Sequence 1, Application US/08467969A
; Patent No. 6168786
; GENERAL INFORMATION:
; APPLICANT: Klein, Michel H
APPLICANT: Du, Run-Pan
APPLICANT: Ewasyshyn, Mary E
; TITLE OF INVENTION: Chimeric ImmuninumBER OF SEQUENCES: 21
CORRESPONDENCE ADDRESS:
; ADDRESSEE: Sim & McBurney
; STREET: 330 University Avenue, 6
; CITY: Toronto
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEPHONE: (416) 595-1155
TELEFAX: (416) 595-1163
TELEX: 065-24567 SIMBAS
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 1844 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              73.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTGTA 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         970 TTATTGATTCTGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: nucleic acid
STRANDEDNESS: sing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TOPOLOGY: 1: MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;
US-08-344-639E-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QQ
Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 1844;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-08-467-961A-1/c

US-08-467-961A-1/c

Sequence 1, Application US/08467961A

Patent No. 6171783

GENERAL INFORMATION:

APPLICANT: Klein, Michel H.
APPLICANT: Ewasyshyn, Mary E

TITLE OF INVENTION: Chimeric Immunogens

NUMBER OF SEQUENCES: 21

CORRESPONDENCE ADDRESS:

ADDRESSEE: Sim & McBurney

STREET: 330 University Avenue, 6TH Floor

CITY: Toronto
                                                                                                                                                                                                                                                                          CLASSIFICATION: 435

ATTORNEY/AGENT INFORMATION:
NAME: Stewart, Michael I
REGISTRATION NUMBER: 24,973
REFERENCE/DOCKET NUMBER: 1038-475 MIS:bh
TELECOMMUNICATION INFORMATION:
TELEFAX: (416) 595-1155
TELEFAX: (416) 595-1163
TELEX: 065-24567 SIMBAS
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 14; DB
Pred. No. 70;
0; Mismatches
                                                                                                        PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/001,554
FILING DATE: 06-JAN-1993
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: GB 9200117.1
FILING DATE: 06-JAN-1992
                                        APPLICATION NUMBER: US/08/467,969A
FILING DATE: 06-JUN-1995
CLASSIFICATION: 435
```

ò

.rni

us-10-619-906-5

```
Query Match
Best Local Similarity
Matches 14; Conser
 TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         94304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -09-023-655-1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADDRESSEE:
STREET: 31
CITY: PALO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 2007
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-617-594A-3
                                                                                                                                                                                                                                                                                                             ULT 38
.09-617-594A-3
; MOLECULE TY
US-08-001-554A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local S
Matches 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQ ID NO 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT
US-09-0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                    Д
                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 1844;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-08-001-554A-1/c

| Sequence 1, Application US/08001554A |
| Patent No. 6225091 |
| GENERAL INFORMATION: Michel H |
| APPLICANT: Klein, Michel H |
| APPLICANT: Ewasyahyn, Mary E |
| TILLE OF INVENTION: Chimeric Immunogens |
| NUMBER OF SEQUENCES: 21 |
| CORRESPONDENCE ADDRESS: ADDRESS: ADDRESSE: Sim & MCBurney |
| STREET: 330 University Avenue, 6th Floor CITY: Toronto |
| STREET: A30 University Avenue, 6th Floor CITY: Toronto |
| STREET: 330 University Avenue, 6th Floor CITY: Toronto |
| STREET: ADDRESE: Sim & MCBurney |
| STREET: ADDRESS: ADDRESS: ADDRESS: ADDRESS: ADDRESS: BR PC COMPATIBLE |
| COMPUTER: READABLE FORM: RELOS / MS-DOS / MS-D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 3;
70;
                                                                                                                                                                           ATTORNEY/AGENT INFORMATION:

NAME: Stewart, Michael I

REGISTRATION NUMBER: 24,973

REFERENCE/DOCKET NUMBER: 1038-476 MIS:bh

TELECOMMUNICATION INFORMATION:

TELEPHONE: (416) 595-1163

TELEFAX: (416) 595-1163

TELEFAX: 065-24567 SIMBAS

INFORMATION FOR SEQ ID NO: 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 14; DB Pred. No. 70; 0; Mismatches
  APPLICATION NUMBER: US 08/001,554
FILING DATE: 06-JAN-1993
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
                                                                                                        APPLICATION NUMBER: GB 9200117
FILING DATE: 06-JAN-1992
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               73.7%; 50.00%; PJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               : 1844 base pairs
nucleic acid
EDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE CHARACTERISTICS:
LENGTH: 1844 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   970 TTATTGATTCTGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
Matches 14; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRANDEDNESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TOPOLOGY: 1:
MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-08-001-554A-1/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ;
US-08-467-961A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ਠੇ
```

```
APPLICANT: Audonnet, et al.

TITLE OF INVENTION: FELINE CALICIVIRUS GENES AND VACCINES IN PARTICULAR RECOMBINANT VI
FILE REFERENCE: 454313-3151.1

CURRENT APPLICATION NUMBER: US/09/617,594A

CURRENT FILING DATE: 2000-07-14

PRIOR FILING DATE: 2000-03-30

PRIOR FILING DATE: 2000-02-11

PRIOR FILING DATE: 2000-02-11

PRIOR FILING DATE: 2000-02-11

PRIOR FILING DATE: 1999-07-16

NUMBER OF SEQ ID NOS: 26

SOFTWARE: Patentin version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                              ,
,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DETECTION OF BLOOD CELL GENE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ..
0
                                                                              ·;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         protein of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 2007;
                                              Length 1844;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   6.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME/KEY: CDS
LOCATION: (1)..(2004)
OTHER INFORMATION: coding sequence of the "capsid"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Word Perfect 6.1 for Windows/MS-DOS
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4;
                                               3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ore 14; DB 4
red. No. 69;
Mismatches
                                                DB 3
                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           THE
                                                Score 14;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 14;
Pred. No
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SSEE: INCYTE PHARMACEUTICALS,

F: 3174 PORTER DRIVE

PALO ALTO

: CALIFORNIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 1080, Application US/09023655
Patent No. 6607879
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATIONS Benjamin G.
APPLICANT: Cocks, Benjamin G.
APPLICANT: Susan G. Stuart
APPLICANT: Jeffrey J. Seilhamer
TITLE OF INVENTION: COMPOSITION FOR TITLE OF INVENTION: EXPRESSION
TITLE OF CEPOTENCES: 1508
                                                                                                                                                                                                                                       Sequence 3, Application US/09617594A Patent No. 6541458 GENERAL INFORMATION: APPLICANT: Audonnet, et al.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                             0;
(genomic)
                                                73.7%;
100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1830 AATTATTGATTCTG 1843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              73.78;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM: Feline calcivirus
                                                                                                                      16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity 100 14; Conservative
                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 AATTATTGATTCTG
                                                                                                                     TTATTGATTCTGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUMBER OF SEQUENCES: 1
CORRESPONDENCE ADDRESS:
DNA
```

```
APPLICATION NUMBER: 07/964,589
FILING DATE: 1992-10-21
                                                                                                                                                                                                                                                                                                                                                                                                                                            ö;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: 08/:
FILING DATE: 1993-12-30
APPLICATION NUMBER: 07/9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: 08/
FILING DATE: 1995-06-07
APPLICATION NUMBER: 08/
                                                                                                                                                                                                                                                                                                                                                                                                                    73.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2 ATTATTGATTCTGT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
Matches 14; Conser
                                                                                                                                                                                                                                                                               TOPOLOGY: lir
MOLECULE TYPE:
DESCRIPTION:
                                                                                                                                                                                                                                                                                                                                        DESCRIPTION:
HYPOTHETICAL:
                                                                                                                                                                                                                                                                                                                          DESCRIPTION:
                                                                                                                                                                                                                                                                                                                                                                                     US-08-787-739-58
                                                                                                                                                                                                                                                                                                                                                                                                                                               14;
                                                                                                                                                                                                                                                                                                                                                                         ANTI-SENSE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EARLIER
EARLIER
EARLIER
EARLIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EARLIER
EARLIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EARLIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EARLIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EARLIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EARLIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ਠੇ
                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                          Length 2354;
                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (EPO)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PatentIn Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                          4,
                                                                                                                                                                                                                                                                                                                                                                          Score 14; DB Pred. No. 69;
                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MN Gene and Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Ver
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/787,739
FILING DATE: 24-JAN-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/485,049
FILING DATE: 07-JUN-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/486,756
FILING DATE: 07-JUN-1995
                                                                                                                                                 PA-0001 US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA:
APPLICATION NUMBER: US no '...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: 07-JUN-1995
PRIOR APPLICATION DATA:
APPLICATION NATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-08-787-739-58/c
; Sequence 58, Application US/08787739
; Patent No. 6027887
; GENERAL INFORMATION:
; APPLICANT: Zavada, Jan
APPLICANT: Pastorekova, Silvia
APPLICANT: Pastorek, Jaromir
TITLE OF INVENTION: MN Gene and Pro
NUMBER OF SEQUENCES: 96
CORRESPONDENCE ADDRESS:
; ADDRESSEE: Leona L. Lauder
STREET: 369 Pine Street, Suite 61
; CITY: San Francisco
; STATE: California
 US/09/023,655
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                               73.7%; 5c.
100.0%; P:
0;
                                                                                                                                               REFERENCE/DOCKET NUMBER: PA
TELECOMMUNICATION INFORMATION:
TELEPHONE: (650) 855-0555
                                                                                                                                    37,071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2324
                                                                      FILING DATE:
CLASSIFICATION:
ATTORNEY/AGENT INFORMATION:
NAME: Zeller, Karen J.
REGISTRATION NUMBER: 37,
                                                                                                                                                                                          TELEFAX: (650) 845-4166
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                      16
                                                                                                                                                                                                                                       2354 base pairs nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
               HEREWITH
                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION DATA:
                                          NOR APPLICATION DATA: APPLICATION NUMBER:
APPLICATION NUMBER
                                                                                                                                                                                                                                                                                                            , LIBRARY: GENBANK; CLONE: 9182573
US-09-023-655-1080
                                                                                                                                                                                                                                                                                    linear
                                                                                                                                                                                                                                                                                                                                                                                           Similarity
               FILING DATE: HI CLASSIFICATION:
                                                                                                                                                                                                                                                                                    TOPOLOGY: line IMMEDIATE SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         USA
                                                                                                                                                                                                                                                       TYPE: nuclei
STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY: UZIP: 94104
                                                                                                                                                                                                                                                                                                                                                                                                          14;
                                                                                                                                                                                                                                          LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2311
                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local
Matches 1
                                                                                                                                                                                                                                                                                                                                                                             Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ZIP:
                                             PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
a
                                                                                                                                                                                                                                                                                                                                                                                                                                         ਠੋ
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 2501;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indele
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DNA (genomic)
MN genomic region between pMN1 and
Bd3 assumed to contain regulatory
elements
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 3;
. 68;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VS-09-178-115-58/c

VS-09-178-115-58/c

Sequence 58, Application US/09178115

Patent NO. 6297041

GENERAL INFORMATION:

APPLICANT: Zavada, Jan

APPLICANT: Pastorekova, Silvia

APPLICANT: Pastorekova, Silvia

TITLE OF INVENTION: MN Gene and Protein

FILE REFERENCE: D-0021.5A

CURRENT APPLICATION NUMBER: US/09/178,115

CURRENT FILING DATE: 1998-10-23

EARLIER APPLICATION NUMBER: 08/787,739

EARLIER FILING DATE: 1995-10-23

EARLIER FILING DATE: 1995-06-07

EARLIER APPLICATION NUMBER: 08/486,756

EARLIER FILING DATE: 1995-06-07

EARLIER FILING DATE: 1995-06-07

EARLIER APPLICATION NUMBER: 08/481,658

EARLIER FILING DATE: 1995-06-07

EARLIER APPLICATION NUMBER: 08/481,658

EARLIER FILING DATE: 1995-06-07
FILING DATE: 07-JUN-1-1995

PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/485,863
FILING DATE: 07-JUN-1995

PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/487,077
FILING DATE: 07-JUN-1995
ATTORNEY/AGENT INFORMATION:
NAME: Lauder, Leona L.
REGISTRATION NUMBER: 30,863
REFERENCE/DOCKET NUMBER: D-0021.4
TELEPHONE: 415-981-2034
TELEFAX: 415-981-2034
TELEFAX: 415-981-2034
TELEFAX: 415-981-332
INFORMATION FOR SEQ ID NO: 58:
SEQUENCE CHARACTERISTICS:
LENGTH: 2501 base pairs
TYPE: nucleic acid
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE: 1995-06-07
APPLICATION NUMBER: 08/487,077
FILING DATE: 1995-06-07
APPLICATION NUMBER: 08/260,190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: 1994-06-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    08/485,863
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         08/485,862
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pred
```

ö

.rni

-619-906-2

-10

81

```
ö
                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                         2501;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 2501;
                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                         Length
                                                                                                                                                                                                                                                                                                                .;
0
                                                                                                                                                                                                                                                                       3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             э;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 14; DB 3; Pred. No. 68; 0; Mismatches
                                                                                                                                                                                                                                                                                           68;
                                                                                                                                                                                                                                                                     Score 14; DB
Pred. No. 68;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 58, Application US/0917776A

Sequence 58, Application US/0917776A

Batent No. 6297051

GENERAL INFORMATION:

APPLICANT: PASECREKOVA, Silvia

APPLICANT: PASECREK, Jaromir

TITLE OF INVENTION: NV Gene and Protein

FILE REFERENCE: D-0021.5A

CURRENT APPLICATION NVMBER: US/09/177,776A

CURRENT FILING DATE: 1998-10-23

EARLIER APPLICATION NVMBER: 08/485,049

EARLIER APPLICATION NVMBER: 08/485,049

EARLIER APPLICATION NVMBER: 08/485,049

EARLIER APPLICATION NVMBER: 08/485,049

EARLIER FILING DATE: 1995-06-07

EARLIER APPLICATION NVMBER: 08/487,077

EARLIER APPLICATION NVMBER: 08/487,077

EARLIER FILING DATE: 1995-06-07

EARLIER FILING DATE: 1993-12-30

EARLIER FILING DATE: 1993-12-30

EARLIER FILING DATE: 1992-03-11

MIMBER OF ELING DATE: 1992-03-11
                                                                                                                                                                                                                                                                         DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 1992-03-11

F SEQ ID NOS: 116
    PV-709-92
                                                                                                                                                                                                                                                       73.7%; Sc.
100.0%; P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              73.7%; Scc
100.0%; P.
EARLIER APPLICATION NUMBER: PV-
EARLIER FILING DATE: 1992-03-11
NUMBER OF SEQ ID NOS: 116
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 58.
LENGTH: 2501
                                                                                                                                                                                                                                                                                                                                                      2 ATTAITGAITCIGI 15
                                                                                                                                                                                                                                                                                          Similarity 100 14; Conservative
                                                                                                                                                                                                                                                                                                                                                                            2131 ATTATTGATTCTGT
                                                                                                                                                                                  ; NAME/KEY: misc_feature; LOCATION: (1)..(2501)
US-09-178-115-58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OF SEQ ID NOS: 1
RE: Patentin Ver.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (1)..(2501)
US-09-177-776-58
                                                                                                                                            ORGANISM: HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: DNA
ORGANISM: HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -09-177-776-58/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EQ ID NO 58
LENGTH: 2501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local S
Matches 14
                                                                                                                         TYPE: DNA
                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                         Best Local
Matches
                                                                                                                                                                 FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER
                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT
                                                                                                                                                                                                                                                                                                                                                                                              рp
                                                                                                                                                                                                                                                                                                                                                        ò
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 3700, Application US/09710279

Sequence 3700, Application US/09710279

Patent No. 6703492

GENERAL INFORMATION:
APPLICANT: KIMMERLY, WILLIAM JOHN

TITLE OF INVENTION: STAPHYLOCOCCUS EPIDERMIDIS NUCLEIC ACIDS AND PROTEINS
FILE REFERENCE: PU3480US

CURRENT APPLICATION NUMBER: US/09/710,279

CURRENT FILING DATE: 2000-11-09

PRIOR APPLICATION NUMBER: 60/164,258

PRIOR FILING DATE: 1999-11-09

NUMBER OF SEQ ID NOS: 4472

SOFTWARE: Patentin Ver. 2.1

SEQ ID NO 3700

LENGTH: 3272
                                                                                          Sequence 7, Application US/09174937

Sequence 7, Application US/09174937

Patent No. 6756212

GENERAL INFORMATION:
APPLICANT: Khodadoust, Mehran
TITLE OF INVENTION: Isolated Proteins and Nucleic Acid Molecules Having
TITLE OF INVENTION: Homology to NIP2 Proteins and Uses Thereof
FILE REFERENCE: mni061
CURRENT APPLICATION NUMBER: US/09/174,937

CURRENT FILING DATE: 1998-10-19

NUMBER OF SEQ ID NOS: 9

SOFTWARE: Patentin Ver. 2.0

SEQ ID NO 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ·.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3272;
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OTHER INFORMATION: Description of Artificial Sequence:
OTHER INFORMATION: nucleic acid sequence
US-09-710-279-3700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                            .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                               4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4;
                                                                                                                                                                                                                                                                                                                                                                                                                             DB 4
68;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                            Score 14;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 14;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 45
US-08-787-739-90/c
; Sequence 90, Application US/08787739
; Patent No. 6027887
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      73.7%; 5c.
100.0%; Pr
                                                                                                                                                                                                                                                                                                                                                                                                                 73.7%; bu
100.0%; Pi
0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1769 TTATTGATTCTGTA 1756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          6 TIGATICIGIAGGT 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTATTGATTCTGTA 16
                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity 100
14; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                1787 TTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                 TYPE: DNA ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                             .. (433)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 44
US-09-710-279-3700/c
                                                                                                                                                                                                                                                                                                                                              ; FEATURE:
; NAME/KEY: CDS
; LOCATION: (56).
US-09-174-937-7
                                                                                                                                                                                                                                                                                                   2966
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                14;
                                                                          RESULT 43
US-09-174-937-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local S
Matches 14
N
                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                          Local
                                                                                                                                                                                                                                                                                                LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                             d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        d
D
à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ઠે
```

ö

Gaps

0;

Indels

0;

Similarity 100 14; Conservative

```
APPLICANT: Zavada, Jan,
APPLICANT: Pastorek, Jaconia
TITLE OF INVENTION: We dee and Protein
APPLICANT: Pastorek, Jaconia
TITLE OF INVENTION: We dee and Protein
NUMBER OF SEQUENCES: 96
CORRESSEN: Leona L. Lauder
STREET: San Francisco
CITTLE OF LIVER ADALASE FORM:
CONTYEX: USA
CONTYEX: USA
CONTYEX: USA
CONTYEX: READALE FORM:
CONTYEX: ADALES FORM:
CONTYEX: READALE FORM:
CONTYEX: ADALES FORM:
CONTYEX: ADALES FORM:
CONTYEX: ADALES FORM:
CONTYEX: TO ADALES
CONTYER: TO ADALES
CONTYEX: TO AD
```

Query Match
73.7%; Score 14; DB 3; Length 3532;
Best Local Similarity 100.0%; Pred. No. 67;
Matches 14; Conservative 0; Mismatches 0; Indels 0;

2 ATTATTGATTCTGT 15 |||||||||||| 2131 ATTATTGATTCTGT 2118

ದ್ದ

ð

Search completed: April 26, 2005, 16:56:41 Job time : 139 secs THIS PAGE BLANK (USPTO)

AC006398 Homo AC091621 Papic

ACC091621 Papio and Continuation (3 of ACC092456 Homo sapi ACC092456 Homo sapi ACC091661 Pan trogl ACC098817 Homo sapi ACC098817 Homo sapi ACC098811 Papio and ACC098811 Rattus no ACC198676 Mus muscu ACC198676 Mus muscu ACC098411 Rattus no ACC125675 Rattus no ACC125675 Rattus no ACC106456 Rattus no

· rg

Ŋ ı

```
Score 19; DB Pred. No. 6.4; Mismatches
                                                                                                                                                                                                                                                 1. .458
/organism="Homo sapiens"
/mol_type="unassigned DNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                      1410 bp
from patent US 6204043
AC006398
AC091621
LMFLCHR31
AC092456
AC007670
AC091661
AC091613
AC098817
AC098811
AC098811
AC19280
AC102150
AC133083
AC138676
AC138676
AC138676
AC138676
AC138676
AC125675
AC125675
AC125675
AC125675
                                                                                                                                                                                                      Chordata;
Primates;
                                                                                                                                                                                                                              neck cancer
Patent: WO 0212329-A 179 14-1
CORIXA CORPORATION (US)
Location/Qualifiers
                                                                                                                                                                                                                                                                                                              330
                                                                                                                                                                                                                          methods
                                                                                                                                                                                                                                                                                                    19
                                                                                                                                                                         from Patent
                                                                                                                                                                                                                                                                                          ;
0
                                                                                                                                                                                                                                                                                                                                                      GI:15104382
                                                                                                                                                                                  GI:19701757
                                                                                                                                                                                                                                                                                                            AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                               Similarity 100.08
19; Conservative
Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                1
Wang, T. and Fan, L.
Compositions and m
92611
101443
1100000
140805
150070
153270
159790
164958
172263
182644
183774
196915
196915
196915
204308
210358
213348
221618
221618
235315
256265
273331
                                                                                                                                                                         179
                                                                                                                                                                                            sapiens
sapiens
                                                                                                                                                                        Sequence 17
AX393790
AX393790.1
                                                                                                                                                                                                                                                                                                                                            Ч
                                                                                                                                                                                                                                                                                                                                                      ٦.
AR143096
Sequence
AR143096
AR143096.
                                                                                                                                                                    AX393790
                                                                                                                                                                                                                                                                                                                                                               Unknown.
Unknown.
                                                                                                                                                                                                 Ношо
                                                                                                                                                                                             Ношо
 Query Match
Best Local S
Matches 19
                                                                                                                                                                                                                                                                                                              348
                                                                                                                                                                                                                                                                                                                            RESULT 2.
AR143096/c
LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                    source
                                                                                                                                                          RESULT 1
AX393790/c
LOCUS
                                                                                                                                                                        DEFINITION
ACCESSION
VERSION
                                                                                                                                                                                                  ORGANISM
                                                                                                                                                                                                                REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                       KEYWORDS
SOURCE
                                                                                                                                                                                                                                              FEATURES
 ORIGIN
                                                                                                                                                                                                                                                                                                               pp
                                                                                                                                                                                                                                                                                                     ઠે
                                                                                     0 0 0
                                       0000
  O O O
                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                            Sequence
Sequence
Bacillus
Bacillus
Mus muscu
Human DNA
                                              tes/sec
                                                                                                                                                                                                                               results predicted by chance to have a
l to the score of the result being printed,
of the total score distribution.
                                                                                                                                                                                                                                                                           AX393790
AR143096
AX481487
CQ833974
AX329930
AX330492
AX332571
AX334317
AX334317
AX393829
AX409532
AX409532
AX663647
L23808 HU
CQ730208
AR290617
AJ304815
AJ304815
AJ304815
                                             apda
                                                                                                                                                                                                                                                                   Descript
                                   Search time 1816 Seconds (without alignments) 506.965 Million cell upda
                                                                                                              9416466
      5.1.6
Compugen Ltd
                                                                                          residues
                                                                                                              parameters
                                                                                                                                                                                                                                                     SUMMARIES
      version
- 2005
                                                                                                                                                                                                                                                                           AX393790
AR143096
AX481487
CQ833974
AX329930
AX330492
AX332571
AX332571
AX334317
AX333829
AX409532
AX663647
HUMHME
CQ730208
AR290617
BCE304816
AC101422
HS188H10
                                                                                                                                        summaries
                          model
                                                                                           S
                                    :57
                                                                                 ٥.
                                                                                          2422760795
                                                                  Н
                                                                                                               chosen
                                                                                 9
                          8
                                                                  aattattgattctgtaggt
                                    11:52
       GenCore
(c) 1993
                                                                                 Gapext
                          using
                                                                                                                                                                                                                                     than or equal
by analysis c
                                                                                                                                       45
                                                                                                                         2000000000
                                                                                                                                                                                                                                of
                                                                                                                                                                                                                                                                             DB
                                    2005,
                                                                                                              satisfying
                                                                                                                                                   gb_ba:*
gb_in:*
gb_on:*
gb_on:*
gb_ph:*
gb_pr:*
gb_rc:*
gb_rc:*
gb_un:*
                                                                                                                                        first
                                                        -10-619-906-
                                                                                                                                                                                                                                 number
                                                                                                                                                                                                                                                                             seds,
                                                                                                                                                                                                                                                                   Length
                          search,
            Copyright
                                                                               _60.0
                                    26,
                                                                            MUC
                                                                                                                                        Listing
                                                                                                                                                                                                                                      greater thar
derived by
                                                                                                                        length:
length:
                                                                                           4708233
                                                                                                                                                                                                                                 the
                                                                                                                                                                                                                                                                            100.00
100.00
100.00
100.00
100.00
100.00
100.00
100.00
100.00
100.00
100.00
100.00
100.00
100.00
100.00
100.00
100.00
                                                                                                                                                                                                                                                               Query
Match
                                                                           OLIGO_
Gapop_
                                    April
                                                                                                               hits
                          nucleic
                                                                                                                                                       is
                                                        1.9
                                                                                                    0
                                                                                                                                        Post-processing:
                                                                                                              of
                                                                                                                                                                                                                                                                             No.
                                                                                                                         seq
seq
                                                                                                                                                                                                                                                                     core
                                                             score:
                                                                                                                                                                                                                                      score gand is
                                                                            table
                                                                                                               number
                                                                                                                                                                                                                                 Pred
                                                                                                                         0B
0B
                                                                                                                                                                                                                                                                   S
                          nucleic
                                                        Title:
Perfect so
Sequence:
                                                                                                     size
                                                                                                                                                  Database
                                                                                           Searched
                                                                                                                         Minimum
Maximum
                                                                            Scoring
                                                                                                                                                                                                                                                                             0
::
                                                                                                                                                                                                                                                               Result
No.
                                                                                                               Total
                                                                                                     Word
                                    Run
                                                                                                                                                                                                                                                                              0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
                                                                                                                                                                                                                                                                                                                                                                   UU
                          Σ
```

and

head

of

diagnosis

and

therapy

 $\mathsf{the}$ 

for

14-FEB-2002

Euteleostomi; Homo.

Vertebrata; 1

Craniata; Ve Catarrhini;

PAT

linear

DNA

σ

458 bp WO0212329

ALIGNMENTS

08-AUG-2001

linear

DNA

Gaps

ö

Indels

.. 0

458;

Length

9

DB (6.4;

```
Conservative
.1778
                                                                          Query Match
Best Local Similarity
Matches 19; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
19; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 10
AX330492
AX330492.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AX330492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local S
Matches. 19
 source
                                                                                                                                                                                                                                                                                                                                                                                                                                                     source
                                                                                                                                                                                                                                                                                       SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DEFINITION
ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 6
AX330492/c
                                                                                                                                                                                                              Ü
                                                                                                                                                                                                                                     DEFINITION
                                                                                                                                                                                                                                                ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                           REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
AUTHORS
                                                                                                                                                                                               RESULT 5
AX329930/c
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                            JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURES
                                                                                                                                                                                                                                                                                                                                                                                   TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE
                                                    ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LOCUS
                                                                                                                                                          a
                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Astle, J.H., Boardman, L.A., Bugart, L.J., Burgess, C.C., Catino, T.J., Dwivedi, P., Huntress, M., Johnson, K.A., Lewis, M.E., Maimonis, P.J., Myerow, S.H., Brown-Shimer, S.L., Thiagalingam, A., Thibodeau, S.N. and Molino, G.A.
                                                                                                                                                                                                                                                                                          16-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 29-JUL-2004
                                                                                                                                                                                                                                                                                                                                                                                   Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EDUCATION
                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eutele
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Detection methods using TIMP 1 for colon cancer diagnosi
Patent: EP 1439393-A 10 21-JUL-2004;
Bayer Healthcare LLC (US); MAYO FOUNDATION FOR MEDICAL E
AND RESEARCH (US)
                                                                                                                                                                                                                                                                                         PAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                       gene
                                                                                                                                             Length 1410;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 1653
                                                                                                                                                                       Ø
                                                                                                                                                                                                                                                                                         linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 linear
                                                                                                                                                                      Indel
                                                                                                                                                                                                                                                                                                                                                                                                                                      target
                                                                                                                                                                                                                                                                                                                                                                                                                    Kreutzer, R., Limmer, S., Rost, S. and Hadwiger, P. Method for inhibiting the expression of a targe Patent: WO 02055693-A 101 18-JUL-2002; Ribopharma AG (DE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                      0
                                                                                                                                            ;
                                                                                                                                                                                                                                                                                         DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 19; DB 6
Pred. No. 5.1;
); Mismatches
                                                                                                                                          Score 19; DB (Pred. No. 5.2;
                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                     5693
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1. .1653
/organism="Homo sapiens"
/mol_type="unassigned DNA"
/db_xref="taxon:9606"
                                                                                                     type="unassigned DNA"
         1 (bases 1 to 1410)
Shapiro, S.D.
Human macrophage metalloproteinase
Patent: US 6204043-A 1 20-MAR-2001
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1778 bp
EP1439393.
                                                                                                                                                                                                                                                                                      AX481487
Sequence 101 from Patent WO02058
AX481487
                                                                                        /organism="unknown"
/mol_type="unassign
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers
                                                                                                                                                                                                                         343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 343
                                                                                                                                                                                              AATTATTGATTCTGTAGGT 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 AATTATTGATTCTGTAGGT 19
                                                                                                                                                                    ·;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 10 from Patent
CQ833974
CQ833974.1 GI:50833579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ;
0
                                                                                                                                                                                                                                                                                                                               GI:22316401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%;
                                                                                                                                          th 100.0%; Similarity 100.0%; 19; Conservative (
                                                                                                                                                                                                           361 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     361 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                       Homo sapiens (human)
Homo sapiens
                                                                             .1410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
Unclassified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
Matches 19; Conser
                                                                                                                                                                                                                                                                                                                               ۲.
                                                                                                                                                                                                                                                                                                                               AX481487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CQ833974
                                                                                                                                                                                                Н
                                                                                                                                           Query Match
Best Local
                                                                              source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 4
CQ833974/c
                                                                                                                                                                                                                                                               RESULT 3
AX481487/c
                                                                                                                                                                                                                                                                                                   DEFINITION
                                                                                                                                                                                                                                                                                                                                                                     ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM
                                                                                                                                                                                                                                                                                                                ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
AUTHORS
TITLE
           REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE
JOURNAL
                                                   JOURNAL
                                                                                                                                                                    Matches
                                                               FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURES
                                     TITLE
                                                                                                                  ORIGIN
                                                                                                                                                                                                                                                                                                                                                        SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LOCUS
                                                                                                                                                                                                                         a
a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                               8
```

```
Young, P.E., Augustus, M., Carter, K.C., Ebner, R., Endress, G., Horrigan, S., Soppet, D.R. and Weaver, Z.
Cancer gene determination and therapeutic screening using signature gene sets

Patent: WO 0194629-A 439 13-DEC-2001;

Avalon Pharmaceuticals (US)

Location/Qualifiers
                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Young, P.E., Augustus, M., Carter, K.C., Ebner, R., Endress, G.,
Horrigan, S., Soppet, D.R. and Weaver, Z.
Cancer gene determination and therapeutic screening using signature gene sets
Patent: WO 0194629-A 1001 13-DEC-2001;
Avalon Pharmaceuticals (US)
Location/Qualifiers
                                                                                                                                                                                                                                                                               09-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PAT 09-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                PAT
                                                                                                                        0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ;
0
                                                                                      Length 1778;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 1778
                                                                                                                                                                                                                                                                                 linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  linear
                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .;
0
                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                 DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DNA
                                                                                       DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB
                                                                                     Score 19; DB
Pred. No. 5;
; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1778 bp D
1001 from Patent WO0194629.
                                                                                                                                                                                                                                                                      Sequence 439 from Patent WO0194629. AX329930.1 GI:18102900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5,
/organism="Homo sapiens"
/mol_type="unassigned DNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1. .1778
/organism="Homo sapiens"
/mol_type="unassigned DNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1. .1778
/organism="Homo sapiens"
/mol_type="unassigned DNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 19;
Pred. No.
                                                                                                                                                                          373 AATTATTGATTCTGTAGGT 355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             355
                                                                                                                                                         1 AATTATTGATTCTGTAGGT 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 AATTATTGATTCTGTAGGT 19
                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GI:18103470
                                                                                      100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%;
larity 100.0%;
Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           373 AATTATTGATTCTGTAGGT
```

3

g

ð

```
Young, P.E., Augustus, M., Carter, K.C., Ebner, R., Endress, G.,
Horrigan, S., Soppet, D.R. and Weaver, Z.
Cancer gene determination and therapeutic screening using signature gene sets

gene sets
Patent: WO 0194629-A 4826 13-DEC-2001;
Avalon Pharmaceuticals (US)
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        23-MAR-2002
                                                                                    PAT 09-JAN-2002
                                                                                                                                                                         Craniata; Vertebrata; Euteleostomi
Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                head
                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ;
0
                                                                                                                                                                                                                                                                                                                                                                                                         .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                diagnosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 1778;
                                                                                                                                                                                                                                                                                                                                                                                Length 1778;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Craniata, Vertebrata, Catarrhini, Hominidae,
                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         linear
                                                                                    linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;
0
                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                therapy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DNA
                                                                                      DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           218 14-FEB-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB
                                                                                                                                                                                                                                                                                                                                                                                  DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 19; DB Pred. No. 5; 0; Mismatches
                                                                                   1778 bp D
4826 from Patent WO0194629.
                                                                                                                                                                                                                                                                                                                                                                             th Similarity 100.0%; Score 19; DE Similarity 100.0%; Pred. No. 5; 19; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /organism="Homo sapiens"
/mol_type="unassigned DNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                  /organism="Homo sapiens"
/mol_type="unassigned DNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AX393829 1778 bp
Sequence 218 from Patent WO0212329
AX393829
AX393829.1 GI:19701796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Chordata;
Primates;
                                                                                                                                                             Homo sapiens
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CORPORATION (US)
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Wang, T. and Fan, L.
Compositions and methods for the cancer
Patent: WO 0212329-A 218 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                            355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    355
                       355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          19
                                                                                                                                                                                                                                                                                                                                                                                                                                  19
19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;
0
                                                                                                                          GI:18125036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                              373 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%;
larity 100.0%;
Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                  AATTATTGATTCTGTAGGT
            373 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens (human)
Homo sapiens
Eukaryota; Metazoa; C
Mammalia; Eutheria; P
                                                                                                                                                  Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .1778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity
hes 19; Conser
                                                                                                Sequence 48
AX334317
AX334317.1
                                                                                     AX334317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local S
Matches 19
                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local S
Matches 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     373
                                                                                                                                                                                                                                                                                                                                                                                                                                     Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 source
                                                                                                                                                                                                                                                                                                          source
                                                            RESULT 9
AX334317/c
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 10
AX393829/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LOCUS
DEFINITION
ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM
                                                                                                                                                                ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE
AUTHORS
                                                                                                              ACCESSION
VERSION
                                                                                                                                                                                                    REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                    JOURNAL
                                                                                                                                      KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURES
                                                                                                                                                                                                                                                                                             FEATURES
                                                                                                                                                                                                                                        TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORIGIN
                                                                                                                                                                                                                                                                                                                                                          ORIGIN
                                                                                                                                                    SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    <del>Q</del>
                                                                                                                                                                                                                                                                                                                                                                                                                                                            <del>а</del>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                     8
 ð
                                                                                                                                                                                                                                                                                                          g signature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         09-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ig signature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                    09-JAN-2002
                                      0
                                                                                                                                                                                                                Homo sapiens (human)
Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Euteleostomi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                      Gaps
                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ტ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eutele
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Young, P.E., Augustus, M., Carter, K.C., Ebner, R., Endress, Horrigan, S., Soppet, D.R. and Weaver, Z.
Cancer gene determination and therapeutic screening usin gene sets
Patent: WO 0194629-A 4154 13-DEC-2001;
Avalon Pharmaceuticals (US)
Location/Qualifiers
                                                                                                                                                                                                                                                                              Young, P.E., Augustus, M., Carter, K.C., Ebner, R., Endress, Horrigan, S., Soppet, D.R. and Weaver, Z.
Cancer gene determination and therapeutic screening using gene sets
Patent: WO 0194629-A 3080 13-DEC-2001;
Avalon Pharmaceuticals (US)
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                    PAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 1778;
            Length 1778
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 1778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           linear
                                                                                                                                                      linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                      ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;
             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DNA
                                                                                                                                                      DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB
             DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 19; DB Pred. No. 5; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1778 bp D
4154 from Patent W00194629.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  red. No. 5;
Mismatches
            Score 19; DB Pred. No. 5; ; Mismatches
                     5;
                                                                                                                                             1778 bp 1
Sequence 3080 from Patent WO0194629,
AX332571
AX332571.1 GI:18123205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /organism="Homo sapiens"
/mol_type="unassigned DNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                     1. .1778
/organism="Homo sapiens"
/mol_type="unassigned DNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Score 19; 100.0%; Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             355
                                                                                       355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    19
                                                               19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               · 0
                                      ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GI:18124364
                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AATTATTGATTCTGTAGGT
                                                               AATTATTGATTCTGTAGGT
                                                                           373 AATTATTGATTCTGTAGGT
            100.0%;
larity 100.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .1778
                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Matcn
Best Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
19; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AX333645
Sequence 419
AX333645
AX333645.1
          Query Matcn
Best Local Similarity
Watches 19; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               source
                                                                                                                                                                                                                                                                                                                                                                          source
                                                                                                                            RESULT 7
AX332571/c
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 8
AX333645/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM
                                                                                                                                                                                                                                ORGANISM
                                                                                                                                                                   DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE
AUTHORS
                                                                                                                                                                              ACCESSION
VERSION
                                                                                                                                                                                                                                                                    REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURES
                                                                                                                                                                                                       KEYWORDS
                                                                                                                                                                                                                                                                                                                                                             FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORIGIN
                                                                                                                                                                                                                    SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                           ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LOCUS
```

d

ઠે

0

and

0

```
13. .1425
/gene="HME"
                                                                                                                                                                                                                                                                                                                                                                                                                                                      /gene="HME"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens (human)
                                                                                                                                                                                                                                  .1778
                                                                                                                                                             .1778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .1780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       16142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
19; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 16
CQ730208
CQ730208.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CQ730208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                thereof
Patent:
PE Corpo
                                                                                                                                                                                                                                                                                                                                                                                                                                            polyA site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Match
                                                                                                                                                                source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  source
               ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 14
CQ730208/c
                                                  REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DEFINITION
                                                                                                  JOURNAL
MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCESSION
VERSION
                                                                                                                                                                                                                                   gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
AUTHORS
TITLE
                                                                                                                          PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JOURNAL
                                                                                                                                                                                                                                                          CDS
                                                                                                                                                 FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURES
                                                                          TITLE
                                                                                                                                    COMMENT
     SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               qq
                14-JUN-2002
                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                  22-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                prognosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 31-DEC-1994
                                                                                                ; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Euteleostomi
                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eutele
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Oellers, N., Gehrmann, M., Kallabis, H., Hall, R., Schulze, T. Kroegel, C. Genes and proteins for prevention, prediction, diagnosis and treatment of chronic lung disease Patent: WO 02097127-A 22 05-DEC-2002; Bayer Aktiengesellschaft (DE)
                                                                                                                                  Alvares, C., Horne, D., Peres-da-Silva, S. and Vockley, J.G. Gene expression profiles in liver cancer Patent: WO 0229103-A 2179 11-APR-2002; GENE LOGIC INC (US)
               PAT
                                                                                                                                                                                                                                                                                                                                                                                                                  PAT
                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRI
                                                                                                                                                                                                                                                                                 1778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 1778
                linear
                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                  linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                nRNA linear complete cds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                       /organism="Homo sapiens"
/mol_type="unassigned DNA"
/db_xref="taxon:9606"
/note="EMBL/GenBank Accession No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ;
0
                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 mRNA
                DNA
                                                                                                                                                                                                                                                                                                                                                                                                                  DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                 DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB
                                                                                                                                                                                                                                                                               Score 19; DB
Pred. No. 5;
; Mismatches
              1778 bp
2179 from Patent WO0229103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%; Score 19; DE 100.0%; Pred. No. 5; ive 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /organism="Homo sapiens"
/mol_type="unassigned DNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1778 bp r
(HME) mRNA,
                                                                                                                                                                                                                                                                                                                                                                                                                1778 bp
22 from Patent WO02097127
                                                                                                                                                                                 Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      355
                                                                                                                                                                                                                                                                                                                                                       35
                                                                                                                                                                                                                                                                                                                               1 AATTATTGATTCTGTAGGT 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 AATTATTGATTCTGTAGGT 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ;0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human metalloproteinase
L23808
L23808.1 GI:435969
metalloproteinase.
                                                                                                                                                                                                                                                                                                       ö
                                                  GI:21442237
                                                                                                                                                                                                                                                                                                                                                                                                                                                    GI:29163855
                                                                                                                                                                                                                                                                             100.0%;
ilarity 100.0%;
Conservative 0
                                                                                                                                                                                                                                                                                                                                          373 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            373 AATTATTGATTCTGTAGGT
                                                                        (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                        Homo sapiens
Homo sapiens
             AX409532
Sequence 21
AX409532
AX409532.1
                                                                                                                                                                                                                                                                                                                                                                                                               AX663647
Sequence 22
AX663647
AX663647.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
19; Conser
                                                                                                                                                                                                                                                                                            Similarity
                                                                                                Eukaryota;
Mammalia; F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HUMHME
                                                                                                                                                                                                                                                                                                     19;
                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                            Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best_Local
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                          DEFINITION
ACCESSION
VERSION
                                                                                    ORGANISM
AX409532/c
             LOCUS
                                                                                                                                                                                                                                                                                                                                                                                         RESULT 12
AX663647/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM
                                   ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LOCUS
                                                                                                                     REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                      Matches
                                                           KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                               KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     JOURNAL
                                                                                                                                                                                 FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HUMHME/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                            Best
                                                                                                                                                                                                                                                         ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                 LOCUS
                                                                                                                                                                                                                                                                                                                                                       d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
```

```
/ codon_start=1
/codon_start=1
/product="metalloproteinase"
/product="metalloproteinase"
/product="metalloproteinase"
/protein_id="AAA58658.1"
/db_xref="GI:435970"
/translation="MKFLLILLLQATASGALPLNSSTSLEKNNVLFGERYLEKFYGLE
INKLPVTKMKYSGNLMKEKIQEMQHFLGLKVTGQLDTSTLEMMHAPRCGVPDLHHFRE
MPGGPVWRKHYITYRINNYTPDMNREDVDYAIRKAFQVWSNVTPLKFSKINTGMADIL
VVFARGAHGDFHAFDGKGGILAHAFGPGSGIGGDAHFDEDEFWTTHSGGTNLFLTAVH
EIGHSLGLGHSSDPKAVMFPTYKYVDINTFRLSADDIRGIQSLYGDPKENQRLPNPDN
SEPALCDPNLSFDAVTTVGNKIFFFKDRFFWLKVSERPKTSVNLISSLWPTLPSGIEA
AYEIEARNQVFLFKDDKYWLISNLRPEPNYPKSIHSFGFPNFVKKIDAAVFNPRFYRT
YFFVDNQYWRYDERRQMMDPGYPKLITKNFQGIGPKIDAVFYSKNKYYYFFQGSNQFE
1778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PAT 03-FEB-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      uses
                                                     Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gарв
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    other
Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleo Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

I (bases 1 to 1778)
Shapiro, S.D., Kobayashi, D.K. and Ley, T.J.
Cloning and characterization of a unique elastolytic metalloproteinase produced by human alveolar macrophages
J. Biol. Chem. 268 (32), 23824-23829 (1993)
94043200
8226919
Original source text: Homo sapiens adult alms to ansa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Venter, C.J., Adams, M.C., Li, P.W. and Myers, E.W.
Kits, such as nucleic acid arrays, comprising a majority of
humanexons or transcripts, for detecting expression and oth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1778;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO 02068579-A 16142 06-SEP-2002; oration (NY) (US)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        <u>ئ</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1780 bp DNA from Patent WO02068579.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 19; DB Pred. No. 5; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /organism="Homo sapiens"
/mol_type="unassigned DNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                             source text: Homo sapiens
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                     /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/cell_type="macrophage"
/dev_stage="adult"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Corporation (NY) (US)
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GI:42303435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 373 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /gene="HME"
[3. .1/^-
```

S

.rge

S

```
1;
                                                                                                                                                                                                                                                                                                                                                            DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     group
                                                                                                                                                                                                                          DB :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1. .1146
/organism="Bacillus cereus
/mol_type="genomic DNA"
/strain="ATCC14579"
                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mahillon, J.G.
Direct Submission
Submitted (19-DEC-2000) Mahillon
Genetics, Catholic University of
B-1348, BELGIUM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /isolate="Type strain"
/db_xref="taxon:226900"
/clone="ATCC.2"
                                                                                                                                                                                                                          Score 17;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                            ďq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ubiquity and multicopy of the c
the Bacillus cereus sensu lato
Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gene="clo2"
function="hemolysis"
                                                                                                                                                                                                                                                                                                                                                           1146
clo2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                         BCE304816
Bacillus cereus partial clo2 AJ304816
AJ304816.1 GI:14589122
cereolysin O; clo2 gene.
Bacillus cereus ATCC 14579
Bacillus cereus ATCC 14579
Bacteria; Firmicutes; Bacill
                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                country="USA" .1146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       codon_start=1
transl_table=
                                                                                                                                                                                                                                                                          17
                                                                                                                                                                                                                                                                                                37
                                                                                                                                                                                                                        th 89.5%; Similarity 100.0%; 17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /gene="clo2"
<1. .>1146
                                                                                                                                                                                                                                                                                       AATTATTGATTCTGTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                          cereus group.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Michelet, N
                                                                                                                                                                                                                          Query Match
Best Local S
Matches 17
                                                                                                                                                                                                                                                                          Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   source
                                                                                                                                                                                                                                                                                                                                                           LOCUS
DEFINITION
ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                    RESULT 17
BCE304816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                          KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CDS
CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE
                                                                                                                                                                                                    ORIGIN
                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                          ò
                                  ;
                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-JUL-2001
                                                                                                                                           12-JUN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2/12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Microbial
                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                    Сарв
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         members
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ¤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mahillon, J.G.
Direct Submission
Submitted (19-DEC-2000) Mahillon J.G., Laboratory of Mics
Genetics, Catholic University of Louvain, Place Croix du
B-1348, BELGIUM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         bp DNA linear BCT gene for putative cereolysi
                                                                                                                                                                                                                                                                a high density
                                   .
0
                                                                                                                                                                                                                                                                                                                                                                                                .;
0
                                                                                                                                           PAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Bacillus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          among
            Length 1780;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BCE304815

N Bacillus cereus partial clol gene for putative ce AJ304815

AJ304815.
AJ304815.1 GI:14589120
cereolysin O; clol gene.
Bacillus cereus ATCC 14579
M Bacillus cereus ATCC 14579
Bacteria; Firmicutes; Bacillales; Bacillaceae; Bacereus group.
                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gene
                                                                                                                                                                                                                                                                                                                                                                          Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       organism≈"Bacillus cereus ATCC 14579 'mol_type="genomic DNA" 'strain="ATCC14579"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Michelet,N.
Ubiquity and multicopy of the cereolysin O
the Bacillus cereus sensu lato group
                                                                                                                                                                                                                                                                                                                                                                DB 6; Le.
1.1e+02;
0;
                                                                                                                                                                                                                                     Cohen, D., Chumakov, I. and Blumenfeld, M. Biallelic markers for use in constructing disequilibrium map of the human genome Patent: US 6537751-A 2352 25-MAR-2003;
                                  ;
0
           9
            DB
                                                                                                                                                                                                                                                                                                                                                                       Score 17; DB (; Pred. No. 1.10) (); Mismatches
                                                                                                                                           47 bp DI US 6537751
          Score 19; DB
Pred. No. 5;
; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          'isolate="Type strain"
'db_xref="taxon:226900"
'clone="ATCC.1"
                                                                                                                                                                                                                                                                                                                        /organism="unknown"
/mol_type="genomic DNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
                                                                                                                                                       2352 from patent
                                                                                 355
                                                           1 AATTATTGATTCTGTAGGT 19
                                   .
0
                                                                                                                                                                                                                                                                                                                                                                                               0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /country="USA"
                                                                                                                                                                              GI:31677901
                                                                                                                                                                                                                                                                                                                                                                       89.5%;
llarity 100.0%;
Conservative C
            100.0%;
                                                                    373 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gene="clo1"
                                                                                                                                                                                                                                                                                                                                                                                                                                               Ŋ
                                                                                                                                                                                                                                                                                                                                                                                                                       . .1146
                                   Conservative
                                                                                                                                                                                                                                                                                                                .47
                                                                                                                                                                                                                              Unclassified.
                                                                                                                                                                                                                                                                                                                                                                                  l Similarity
17; Conserv
                                                                                                                                                     Sequence 235
AR290617
AR290617.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Unpublished
                       Local Similarity
hes 19; Conser
                                                                                                                                           AR290617
                                                                                                                                                                                                      Unknown
                                                                                                                                                                                                                 Unknown
                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local S
Matches 17
            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 source
                                                                                                                   RESULT 15
AR290617/c
LOCUS
                                                                                                                                                     DEFINITION
ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORGANISM
                                                                                                                                                                                                                 ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            gene
                                                                                                                                                                                                                                       REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                       JOURNAL
FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 16
BCE304815
                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 JOURNAL
                                                                                                                                                                                          KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PEATURES
                                                                                                                                                                              VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOURCE
                         Best
                                                                                                                                                                                                                                                                                                                                                   ORIGIN
                                                                                                                                                                                                      SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LOCUS
                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                a
a
                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                            ò
```

```
/gene="clo1"
/gene="clo1"
/codon start=1
/codon start=1
/transl_table=11
/product="putative cereolysin O"
/product="putative cereolysin O"
/protein id="CAC43083.1"
/db_xref="G1:14589121"
/db_xref="G0A:Q931B0"
/db_xref="G0A:Q931B0"
/db_xref="G0A:Q931B0"
/translation="TSPVDISIIDSVVNRTYPGAVQLANKAFADNQPSLLVAKRKPLN
/translation="TSPVDISIIDSVVNRTYPGAVQLANKAFADNQPSLLVAKRKPLN
/slibgmrkENTITVQNPTYGNVAGAVDDLVSTWNEKYSTTHTLPARMQYTESMVYS
KSQ1ASALNVNAKYLDNSLNIDFNAVANGEKKVWVAAYKQIFYTVSAELPNNPSDLFG
NSVTFDELTRKGVSNSAPPVWVSNVAYGRTIYVKLETTSKSKDVQAAFKALLKDNSVE
TSGQYKDIFEESTFTAVVLGGDAKEHNKVVTKDFNBIRNIIKDNAELSLKNPAYPISY
TSTFLKDNATAAVHNNTDYIETTTTTSYSSAKMTLDHYGAYVAQFDVSWDEFTFDQKGN
EVLTHKTWDGSGKDKTAHYSTVIPLPPNSKNIKIVARECTGLAWEWWR"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /transl_table=11
/product="putative cereolysin O"
/protein_id="CAC43084.1"
/db_xref="GI:14589123"
/db_xref="GOA:Q93LA9"
/db_xref="GOA:Q93LA9"
/db_xref="UniProt/TrEMBL:Q93LA9"
/translation="TSPVDISIIDSVVNRTYPGAVQLANKAFADNQPSLLVAKRKPLN
/translation="TSPVDISIIDSVVNRTYP"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-JUL-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2/12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          οĘ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Microbial x du Sud, ?
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          members
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cereolysin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Bacillus;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     J.G., Laboratory of M
Louvain, Place Croix
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               among
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 1146;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indela
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gene for putative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Bacillales; Bacillaceae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            14579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cereolysin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATCC
```

```
Unpublished

E (bases I to 73353)

Birren, B., Linton, L., Nusbaum, C., Lander, E., Ali, A., Allen, N., Anderson, S., Barna, N., Bastien, V., Boguslavkiy, L., Boukhgalter, B., Anderson, S., Barna, J., Campopiano, A., Chang, J., Chazaro, B., Choepel, Y., Colangelo, M., Collins, S., Collymore, A., Cook, A., Cook, P., DeArellano, K., Dewar, K., Diaz, J.S., Dodge, S., Faro, S., Fitzhugh, W., Gage, D., Galagan, J., Gardyna, S., Ginde, S., Goyette, M., Graham, L., Grand-Pierre, N., Hagos, B., Heaford, A., Horton, L., Hulme, W., Iliev, I., Johnson, R., Jones, C., Kamat, A., Karatas, A., Kells, C., Lakocque, K., Landers, T., Lehoczky, J., Levine, R., Milo, G., MacLean, C., Macdonald, P., Major, J., Marquis, N., Matthews, C., Macdonald, P., Major, J., Marquis, N., Matthews, C., Norman, C.H., O'Connor, T., Ononnell, P., O'Neil, D., Oliver, J., Peterson, K., Phunkhang, P., Pierre, N., Pollara, V., Raymond, C., Retta, R., Rieback, M., Riley, R., Schauer, S., Schuback, R., Sencer, S., Schubac, S., Severy, P., Spencer, B., Stange-Thomann, N., Stojanovic, N., Strauss, N., Subramanian, A., Talange-Thomann, N., Stojanovic, N., Viel, R., Vo, A., Wilson, B., Wu, X., Wyman, D., Ye, W. J., Young, G., Zainoun, J., Zembek, L., Zimmer, A. and Zody, M.

Direct Submission

P., Willer, A., Wilson, Whitchen and Institute/MIT Center for Genome
KSQIASALNVYAKYLDNSLNIDFNAVANGEKKAMVAAYKQIFYTVSAELPNNPSDLFD
NSVTFDELTRKGVSNSAPPVMVSNVAYGRTIYVKLETTSKSKDVQAAFKALLKDNSVE
TSGQYKDIFEESTFTAVVLGGDAKEHNKVVTKDFNEIRNIIKDNAELSLKNPAYPISY
TSTFLKDNATAAVHNNTDYIETTTTEYSSAKMTLDHYGAYVAQFDVSWDEFTFDQKGN
EVLTHKTWDGSGKDKTAHYSTVIPLPPNSKNIKIVARECTGLAWEWWR"
                                                                                                                                                                                                                                                                                                                                                                                                                                                         HTG 23-NOV-2001
SAMPLING.
                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  leostomi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Research
                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eutel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Eute
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Mur
1 (bases 1 to 73353)
Birren, B., Linton, L., Nusbaum, C. and Lander, E.
Mus musculus, clone RP23-142G11
Unpublished
                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Submitted (23-NOV-2001) Whitehead Institute/MIT Center Research, 320 Charles Street, Cambridge, MA 02141, USA All repeats were identified using RepeatMasker: Smit, A.F.A. & Green, P. (1996-1997) http://ftp.genome.washington.edu/RM/RepeatMasker.html
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NOTE: This record contains 92 individual sequencing reads that have not been assembled into contigs. Runs of N are used to separate the reads and the order in which they appear is completely
                                                                                                                                                                              Length 1146;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Center code: WIBR
Web site: http://www-seg.wi.mit.edu
Contact: sequence_submissions@genome.wi.mit.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                         DNA linear
LOW-PASS SEQUENCE
                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ----- Genome Center
Center: Whitehead Institute/ MIT Center
                                                                                                                                                                                                                           0;
                                                                                                                                                                                <u>ب</u>
                                                                                                                                                                          ore 17; DB 1 red. No. 61; Mismatches
                                                                                                                                                                            Score 17; ; Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                     73353 bp
clone RP23-142G11,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 L16664
42 G 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACI01422.1 GI:17060197
HTG; HTGS PHASE0.
Mus musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    name:
                                                                                                                                                                                                                             ó;
                                                                                                                                                                                                                                                                              17
                                                                                                                                                                                                                                                                                                                              37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              clone name:
                                                                                                                                                                          89.5%;
100.0%;
                                                                                                                                                                                                                                                                           Center project
                                                                                                                                                                                              Similarity 100
17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mus musculus
AC101422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                         AC101422
Mus muscu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mus
                                                                                                                                                                            Query Match
Best Local S
Matches 17
                                                                                                                                                                                                                                                                                                                                                                                                                                 AC101422/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                         RESULT
                                                                                                                            ORIGIN
```

SOURCE

g

ਠੋ

```
arbitrary. Low-pass sequence sampling is useful for identifying clones that may be gene-rich and allows overlap relationships among clones to be deduced. However, it should not be assumed that this clone will be sequenced to completion. In the event that the record is updated, the accession number will be preserved.
                                                                                                                                                                                                                             length
                                                                                           length
                                                                                                                      length
                                                                                                                                                length
                                                                                                                                                                          length
                                                                                                                                                                                                   length
                                                                                                                                                                                                                                                                                 length
                                                                                                                                                                                                                                                                                                                                                                length
                                                                                                                                                                                                                                                                                                                                                                                         length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             length
                                                                                                                                                                                                                                                                                                           length
                                                                                                                                                                                                                                                                                                                                     length
                                                                                                                                                                                                                                                                                                                                                                                                                   length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     length
                                                                                             in
                                                                                                                                                                                                                               in
                                                                                                                                                                                                                                                                                                                                                               in
                                                                                                                      in
                                                                                                                                                in
                                                                                                                                                                                                    in
                                                                                                                                                                                                                                                       in
                                                                                                                                                                                                                                                                                  in
                                                                                                                                                                                                                                                                                                                                       in
                                                                                                                                                                                                                                                                                                                                                                                         i,
                                                                                                                                                                                                                                                                                                                                                                                                                   in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   in
                                                                                                                                                                          in
                                                                                                                                                                                                                                                                                                           in
                                                                                                                                                                                                                                                                                                                                                                                                                                             in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ÷
r
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ь
ц
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŗ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ij
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     in.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           in
                                                                                                                                                                                                                             đq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   đq
                                                                                             đq
                                                                                                                   ďq
                                                                                                                                               фq
                                                                                                                                                                                                    đq
                                                                                                                                                                                                                                                       đq
                                                                                                                                                                                                                                                                                  ďq
                                                                                                                                                                                                                                                                                                           ďq
                                                                                                                                                                                                                                                                                                                                                               đq
                                                                                                                                                                                                                                                                                                                                                                                         ďα
                                                                                                                                                                                                                                                                                                                                                                                                                  фq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                đq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         đq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ф
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 đq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               фq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           đq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ďα
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ďq
                                                                                                                                                                                                                                                                                                                                     ф
                                                                                                                                                                                                                                                                                                                                                                                                                                            фq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       đ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              đq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        đq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            фq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        đq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   đq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      đq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ďq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ďq
                                                                                          of 683
100 bp
of 696
100 bp
of 711
100 bp
of 719
100 bp
of 720
100 bp
                                                                                          contiguence of contig
                                                                                          0446

15749:

15749:

330509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:

340509:
```

us-10-619-906-5.rge

```
ength
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ength
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  leng
                                                                                                         lengt
                                                                                                                                                                                                                 lengt
                                                                                                                                                                                                                                                                                                engt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             eng
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         \vdash
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        <u>.</u>..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                in
                                                                                                         ü
                                                                                                                                                                                                                                          in
                                                                                                                                                                                                                                                                                                                                                   in
                                                                                                                                                                                                                                                                                                                                                                                                       in
                                                                                                                                                                                                                                                                                                                                                                                                                                 in
                                                                                                                                                                                                                                                                                                                                                                                                                                                            in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      in
                                                                               in
                                                                                                                                   in
                                                                                                                                                             in
                                                                                                                                                                                       in
                                                                                                                                                                                                                 in
                                                                                                                                                                                                                                                                     ä
                                                                                                                                                                                                                                                                                              'n
                                                                                                                                                                                                                                                                                                                         in
                            in
                                                      ij
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   đq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             фq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       фq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ф
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             фq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       фq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ďq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  фq
                                                                                                                                                                                                                                                                                                                                                                                                                                                           đq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                фq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ф
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ф
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     þ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ф
                                                                                                                                  ďq
                                                                                                                                                                                                                                                                                              фр
                                                                                                                                                                                                                                                                                                                                                                             ф
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            фq
                                                                                                                                                                                                                                                                                                                                                                                                       ф
                                                                                                                                                                                                                                                                                                                                                                                                                                 đq
                                                                                                                                                                                                                 ф
                                                                                                                                                                                                                                                                                                                         ďα
contiggapo of co
  2770995:
2770995:
2770995:
2770995:
2770995:
3868971:
38756871:
3875695:
3876495:
3876495:
3876495:
3876495:
3876495:
3876495:
3876495:
3876495:
3876495:
3876495:
3876495:
3876495:
3876495:
3876495:
3876495:
3876495:
3876495:
3876495:
3876495:
3876495:
3876495:
3876495:
3876495:
3876495:
3876495:
3876495:
3876495:
3876495:
3876495:
3876495:
3876495:
  26440
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277096
277
```

```
Puring sequence assembly data is compared from overlapping clones. Where differences are found these are annotated as variations together with a note of the overlapping clone name. Note that the variation annotation may not be found in the sequence submission corresponding to the overlapping clone, as we submit sequences with only a small overlap as described above.

This sequence was finished as follows unless otherwise noted: all regions were either double-stranded or sequenced with an alternate chemistry or covered by high quality data (i.e., phred quality >= 30); an attempt was made to resolve all sequencing problems, such as compressions and repeats; all regions were covered by at least one plasmid subclone or more than one M13 subclone; and the assembly was confirmed by restriction digest, except on the rare occasion of the clone being a YAC.

The following abbreviations are used to associate primary accession numbers given in the feature table with their source databases:

Em: EMBL; Sw:, SWISSPROT; Tr: TREMBL; Wp:, WORMPEP; Information on the WORMPEP database can be found at http://www.sanger.ac.uk/FOCjects/Celegans/wormpep This sequence was generated from part of bacterial clone contigs of human chromosome 6, constructed by the Sanger Centre Chromosome 6 Mapping Group. Further information can be found at http://www.chori.org/bacpac/home.htm

VECTOR: PCYPAC2.

Location/Oualifiers

WECTOR: PCYPAC3.
                                                                                                                                                                                                                                                                                04-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Craniata; Vertebrata; Euteleostomi;
Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Direct Submission
Submitted (04-MAR-2003) Wellcome Trust Sanger Institute, Hinxton,
Cambridgeshire, CB10 1SA, UK. E-mail enquiries:
humquery@sanger.ac.uk Clone requests: clonerequest@sanger.ac.uk
------ Genome Center
Center: Wellcome Trust Sanger Institute
                                                                                                                                                                                                                                                                             87206 bp DNA linear PRI 04-M sequence from clone RP1-188H10 on chromosome 6g22,
                                                              ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 87206;
                 Length 73353
                                                                 Indels
                                                               ő
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1. .87206
/organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="RZPD:RPCIP704H10188"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               <u>ن</u>
                DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB
                                       Pred. No. 29; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Center code: SC
Web site: http://www.sanger.ac.uk
Contact: humquery@sanger.ac.uk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               17;
                  Score 17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
1 (bases 1 to 87206)
Mashreghi-Mohammadi,M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                clone="RP1-188H10"
clone_lib="RPCI-1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score
                                                                                                                                                             59250
89.5%; Sc.
100.0%; Pr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                chromosome="6"
                                                                                                               3 TTATTGATTCTGTAGGT 19
                                                                                                                                                                                                                                                                                                                                                                            GI:2815069
                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens (human)
Homo sapiens
                                                                                                                                       complete sequence.
AL021451
AL021451.1 GI:281:
                                                               Conservative
                                        Similarity 17; Conser
                                                                                                                                                                                                                                                                                                         Human DNA
                                                                                                                                                                                                                                                                                 HS188H10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                        Best Local
Matches 1
                                                                                                                                                                                                                                  RESULT 19
HS188H10/c
                                                                                                                                                                                                                                                                                                      DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                       ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                 KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORIGIN
```

ò

 $\infty$ 

```
ö
                                                                                                                                     08-OCT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                USA
                                                                                                                                                                                                                             Craniata; Vertebrata; Euteleostomi;
Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      overlap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Genetics, Washington
St. Louis, Missouri 63108,
replaced gi:4156132.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             63108,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 on
63108,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             63108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         apping
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              63108
                                                                                                                                                                                                                                                                                                                                                                                                                                 Washington
                                                                                                                                                  sednence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Washington
Missouri 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Washington
Missouri 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Washingto
Missouri
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Washingto
Missouri
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Cent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NOTICE: This sequence may not represent the entire insections. It may be shorter because we only sequence overlicione sections once, or longer because we provide a small
                                                                                                                                                                                                                                                                                                                                                                                                                                Center, Washin
: Park Parkway,
               ö
                                                                                                                                     PRI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequencing
                                                                                                                                   linear
complete
                                                                                                                                                                                                                                                                                                                                 Sauer, C., Gibson, A. and Sun, H.

Bauer, C., Gibson, A. and Sun, H.

The sequence of Homo sapiens BAC clone CTA-348C20
Unpublished (2001)

3 (bases 1 to 92611)
Waterston, R.H.

Direct Submission
Submitted (14-JAN-1999) Genome Sequencing Center,
University School of Medicine, 4444 Forest Park Pa
                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Genetics,
St. Louis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               f Genetics,
St. Louis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Genetics,
St. Louis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Genetics,
St. Louis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             St. Louis, replaced ga
                                                                                                                                                                                                             Mammalia; Eutheria; Chordata; Craniata; V Mammalia; Eutheria; Primates; Catarrhini; 1 (bases 1 to 92611)
Sulston, J.E. and Wilson, R.
Toward a complete human genome sequence Genome Res. 8 (11), 1097-1108 (1998)
99063792
                                                                                                                                               7,
               ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           St.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            St.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Center: Washington University Genome
Center code: WUGSC
Web site: http://genome.wustl.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               St
                                                                                                                                  92611 bp DNA
CTA-348C20 from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Submitted (08-OCT-2003) Department of Submitted (08-OCT-2003) Department of University, 4444 Forest Park Avenue, S On Jun 4, 2002 this sequence version represents the Contermination of Genome Centerments.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               o£
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                당
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 oĘ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Contact: sapiens@watson.wustl.edu
------ Summary Statistics
Center project name: H_RG348C20
 red. No. 28;
Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Department of
Park Avenue,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Department o
Park Avenue,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Department or Park Avenue,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Department or Park Avenue,
   Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4 (bases
Waterston, R.
Direct Submission
Submitted (22-JAN-1999) Dr
University, 4444 Forest P
                                                                   30135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Direct Submission
Submitted (04-JUN-2002) D
University, 4444 Forest P
7 (bases 1 to 92611)
Waterston, R.
             .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Direct Submission
Submitted (29-APR-2003)
University, 4444 Forest
8 (bases 1 to 92611)
                                                                                                                                                                          GI:21322241
                                                                                                                                                clone
                                        19
100.08;
                                                                                                                                                                                                    (human)
                                                       TTATTGATTCTGTAGGT
                                       TTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      6 (baser
Waterston, R.
Pirect Submission
               Conservative
                                                                                                                                             Homo sapiens BAC
AC006398
AC006398.2 GI:21
                                                                                                                                                                                                                                                                                                                                                                                                                                                           USA
                                                                                                                                                                                                    sapiens
Similarity 17; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                         MO 63108,
                                                                                                                                   AC006398
                                                                                                                                                                                                    Homo
                                                                 30151
                                        ന
   Local
                                                                                                                                             DEFINITION
ACCESSION
VERSION
                                                                                                                    AC006398/c
                                                                                                                                                                                                               ORGANISM
                                                                                                                                                                                                                                                      REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                     PUBMED
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                               TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
AUTHORS
              Matches
                                                                                                                                                                                                                                                                                                          MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JOURNAL
                                                                                                                                                                                    KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMMENT
   Best
                                                                                                                                   rocas
```

```
submissions
between neighboring data
```

This sequence was finished as follows unless otherwise noted:

all regions were double stranded, sequenced with an alternate
chemistry, or covered by high quality data (i.e., phred quality >=
30); an attempt was made to resolve all sequencing problems, such
as compressions and repeats; all regions were covered by sequence
from more than one subclone; and the assembly was confirmed by restriction digest.

## MAPPING INFORMATION:

and The sequence of this clone was established as part of a mapping and sequencing collaboration between the NHGRI Chromosome 7 Mapping Project (Eric D. Green, Director), John D. McPherson in the Department of Genetics (Washington University), and the Washington University Genome Sequencing Center. For additional information about the map position of this sequence, see http://www.nhgri.nih.gov/DIR/GTB/CHR7, send mailto:egreen@nhgri.nih.gov, or see http://genome.wustl.edu STB/CHR7 , send or see http://genome.wustl.edu

## INFORMATION:

See: U-J. from Clone CTA-348C20 is from a release of the human BAC library CITB-HS-A. The library contains cloned DNA from human sperm. Shizuya et al., Proc. Natl. Acad. Sci. USA 89:8794-7 (1992); Kim et al., Genomics 34:213-8 (1996). The clone is available Research Genetics, Inc. (http://www.resgen.com). SOURCE Clone C

# Selection:

chloramphenicol

t base of NEIGHBORING SEQUENCE INFORMATION: The clone sequenced to the left is CTA-471E18 the clone sequenced to the right is RP11-463M14. Actual start of this clone is at bas position 1 of CTA-348C20 actual end is at base position 92611 of CTA-348C20.

#### FEATURES

/ map="7"
/clone="CTA-348C20"
/clone=lib="CITB-HS-A"
300. .480
/rpt\_family="MER1\_type"
1399. .1057
/rpt\_family="MER1\_type"
1399. .1704
/rpt\_family="MalR"
1932. .2226
/rpt\_family="Alu"
2485. .2635
/rpt\_family="Alu"
4399. .4165
/rpt\_family="ERVL"
4599. .4703
/rpt\_family="ERVL"
8042. .8478
/rpt\_family="ERVI"
8042. .8478
/rpt\_family="Alu"
8542. .8809
/rpt\_family="Alu"
8542. .891
/rpt\_family="Alu"
8542. .891
/rpt\_family="Alu"
8542. .891
/rpt\_family="Alu"
8542. .891 /organism="Homo sapiens" /mol\_type="genomic DNA" /db\_xref="taxon:9606" /chromosome="7" Location/Qualifiers repeat\_region

### repeat\_region

repeat\_region repeat\_region repeat\_region

repeat\_region repeat\_region repeat\_region

repeat\_region repeat\_region repeat\_region repeat\_region

/rpt\_family="AT\_rich" 9268. .9476 /rpt\_family="MIR" 9759. .11034 / ipc\_ramily="mik" 9759. .11034 /rpt\_family="ERVL" repeat\_region

PRI 04-JAN-2003

.rge

```
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Eukaryota; Metazoa; Chordata; Catarrhini; Cercopithecidae; Carcopithecinae; Papio.

Cercopithecinae; Papio.

I (bases 1 to 101443)

Skhter, N., Antonellis, A., Ayele, K., Beckstrom-Sternberg, S.M., Benjamin, B., Blakesley, R.W., Bouffard, G.G., Brinkley, C., Brooks, S., Cariaga, K., Coleman, B., Engle, J., Granite, S., Guan, X., Gupta, J., Haghighi, P., Han, J., Hansen, N., Ho, S.-L., Idol, J.R., Karlins, E., Laric, P., Lee-Lin, S.-Q., Legaspi, R., Maduro, Q.L., Maduro, V.B., Margulies, E.H., Masiello, C., Maskeri, B., McDowell, J., Paguirigan, C., Pearson, R., Portnoy, M.E., Prasad, A., Reddix-Dugue, N., Schandler, K., Schueler, M.G., Sison, C., Stantripop, S., Thomas, J.W., Thomas, P.J., Touchman, J.W., Vogt, J.L., Wetherby, K.D., Wiggins, L., Young, A. and Green, B.D.

NISC Comparative Sequencing Initiative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Green, E.D.

Direct Submission

Submitted (04-JAN-2003) NIH Intramural Sequencing Center,

Grovemont Circle, Gaithersburg, MD 20877, USA

On Jan 4, 2003 this sequence version replaced gi:18640641.

Center: NIH Intramural Sequencing Center

Center: NIH Intramural Sequencing Center

Center: NIH Intramural Sequencing Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Green, E.D.
Direct Submission
Submitted (10-MAY-2001) NIH Intramural Sequencing Center,
Grovemont Circle, Gaithersburg, MD 20877, USA
3 (bases 1 to 101443)
                                                                      complete sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Web site: http://www.nisc.nih.gov
Contact: nisc_zoo@nhgri.nih.gov
------ project_Information
                                                   101443 bp
clone RP41-57J19,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Center project name: cci
Center clone name: 057J19
                                                                                                                                         Papio anubis (olive baboon)
                                                                                                         GI:27497219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               or more than one M13 s
by restriction digest.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (bases 1 to 101443)
                                                    AC091621
Papio anubis o
AC091621
AC091621.4 G1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             source
                    RESULT 21
AC091621/c
                                                                       DEFINITION
                                                                                                                                                             ORGANISM
                                                                                        ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
AUTHORS
                                                                                                                                                                                                                                   REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                    JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURES
                                                                                                                          KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMMENT
                                                                                                                                              SOURCE
                                                       LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 92611;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 17; DB 9;
Pred. No. 28;
0; Mismatches
11142. .11311

/rpt_family="ERVL"

11722. .12119

/rpt_family="ERVL"

12345. .12454

/rpt_family="MER2_type"

12455. .12838

/rpt_family="MaLR"

12839. .13227

/rpt_family="MER2_type"

13618. .13846

/rpt_family="MER2_type"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    38917. .39027
/rpt_family="L2"
41453. .41689
/rpt_family="L2"
/rpt_family="L2"
41776. .4182^
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /rpt_family="AT_rich"
37663..37694
/rpt_family="AT_rich"
38917.
                                                                                                                                                                                               /rpt_family="MIR"
14052. .14340
/rpt_family="Alu"
14449. .14502
/rpt_family="MIR"
15587. .15641
/rpt_family="(TG)n"
15657. .15738
/rpt_family="MIR"
15899. .16020
/rpt_family="L2"
22241. .22595
/rpt_family="Malk"
22597. .22653
/rpt_family="CA)n"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /rpt_family="Malk"
27341. .27627
/rpt_family="L1"
27628. .27927
/rpt_family="Alu"
27928. .29009
/rpt_family="L1"
29010. .29363
/rpt_family="Malk"
30946. .31295
/rpt_family="Malk"
31296. .32186
/rpt_family="L1"
32187. .32524
/rpt_family="L1"
32187. .32524
/rpt_family="L1"
32187. .33136. .33152
/rpt_family="L1"
33050. .33152
/rpt_family="L1"
33050. .33152
                                                                                                                                                                                                                                                                                                                                                                                                                                                /rpt_family="L1"
33510. 33738
/rpt_family="MIR"
35210. 35327
/rpt_family="MIR"
35787. 35814
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                family="MIR"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    89.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
Matches 17; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         repeat_region
                                                                                                                                                                                                                                                                                                                               repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      repeat_region
        repeat_region
                                                                                                                                                                                   repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                        repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            repeat_region
                                         repeat_region
                                                                             repeat_region
                                                                                                               repeat_region
                                                                                                                                                  repeat_region
                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                          repeat_region
                                                                                                                                                                                                                                                                                              repeat_region
                                                                                                                                                                                                                                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  repeat_region
```

8717

8717

Location/Qualifiers

1. .101443
/ organism="Papio anubis"
//mol\_type="genomic DNA"
//db\_xref="taxon:9555"
/ clone="RP41-57J19"
/ clone lib="RP41"
<1. .31435
/ note="this sequence is not the entire insert of clone RP41-57J19; clone overlaps with GenBank Accession Number AC092758 (nucleotides 123789-171690) clone RP41-22J16
(center project name ccj); this annotated segment represents overlap with nucleotides 140269-171690 of AC092758" was confirmed This sequence was finished as follows unless otherwise noted: all regions were double-stranded, sequenced with an alternate chemistry, or covered by high quality data (i.e., phred quality >= 30); an attempt was made to resolve all sequencing problems, such as compressions and repeats; all regions were covered by at least one plasmid subclone or more than one M13 subclone; and the assembly was confirmed. CLONE LENGTH: This sequence represents the entire insert of this clone unless otherwise noted. If there are overlapping clones, the overlaps are noted in the beginning and end of the Features section. misc feature

0;

ö

.; 0

0;

Conservative

Š a Louis,

st.

c, Washington Parkway, St.

Center

-5.rge

```
NOTE: This is a 'working draft' sequence. It currently consists of 23 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will.
                                                                                                                                                                                                    Sequencing vector: M13; 74%
Sequencing vector: M13; 74%
Sequencing vector: plasmid; 21%
Chemistry: Dye-primer ET; 74% of reads
Chemistry: Dye-terminator Big Dye; 21% of reads
Assembly program: Phrap; version 0.990319
Consensus quality: 125167 bases at least Q40
Consensus quality: 136167 bases at least Q20
Consensus quality: 134105 bases at least Q20
Insert size: 106000; agarose-fp
Insert size: 139359; sum-of-contigs
Quality coverage: 4.05 in Q20 bases; sum-of-contigs
Quality coverage: 3.14 in Q20 bases; sum-of-contigs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      length
bp in length
length
bp in length
                                               Center,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        length
                                                                                                                                                 'index.shtml
                                                                                                           Sequencing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               length
bp in 1
length
bp in 1
length
bp in 1
length
bp in 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        length
bp in l
length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                length
bp in l
length
bp in l
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   bp in l
length
bp in l
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 bp in l
length
bp in l
                                              Sequencing (4444 Forest
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            length
bp in l
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       length
bp in l
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  length
bp in l
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         length
bp in l
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ri
Li
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    in
In
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  pp in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          đq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ďq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ф
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  đq
                                                                                                     of 1975
unknown
of 1466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          unknown
of 1164
unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       unknown
of 3836
unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      unknown
of 3926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     unknown
of 1536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             of 2873
unknown
of 1963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               unknown
of 4966
unknown
of 4839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 unknown
of 4909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      unknown
of 6715
unknown
of 6643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  unknown
of 3125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        of 1611
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     of 4548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       of
o
                                               -2001) Genome of Medicine,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  contig
gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         gap of
contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gap of contig gap of contig gap of contig gap of contig gap of contig gap of contig gap of contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gap of contig gap of contig gap of gap of gap of gap of gap of gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gap of
contig
gap of
contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         gap of
contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1975:
3541:
3641:
4805:
6616:
6616:
111225:
13288:
17224:
17224:
17224:
17224:
17224:
17224:
17224:
17224:
17224:
17224:
17224:
17224:
17224:
17224:
17224:
17224:
17224:
17224:
17224:
17224:
17224:
17224:
17224:
17224:
17224:
17224:
17224:
17224:
17224:
17224:
17224:
17224:
17224:
17224:
17224:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267:
172267
 2 (bases 1 to 1408 Waterston, R.H. Direct Submission Submitted (06-JUL-2 University School c MO 63108, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    preserved
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1976
3542
3542
48642
6517
6517
6517
111226
111226
117225
123237
233237
233237
233237
23422
332422
332422
52359
65372
65372
   REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                         COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 chromosc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (AL499621 Leishmania major
                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           06-JUL-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
              /note="single clone coverage"
85858. .>101443
/note="this sequence is not the entire insert of clone
RP41-57J19; clone overlaps with GenBank Accession Number
AC098811 (nucleotides 1-60859) clone RP41-367L14 (center
project name csm); this annotated segment represents
overlap with nucleotides 1-15586 of AC098811"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Euteleostomi;
                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         140805 bp DNA linear HTG 06-J chromosome CTD clone CTD-2155H16, WORKING DRAFT unordered pieces.
                                                                                                                                                                                                                                                                                                                            21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo.
                                                                                                                                                                                                                                                                                                                            LOCUS LMFLCHR31 Accession AL4996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens chromosome CTD clone CTD-2155H16, WORKING I SEQUENCE, 23 unordered pieces.
AC092456
AC092456.1 GI:14625102
HTG; HTGS PHASE1; HTGS DRAFT.
Homo sapiens
Fukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eute Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Hon Waterston, R.H.
The sequence of Homo sapiens clone
Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 110000;
                                                                                                                                               Length 101443
                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ;
0
                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                from base 200001
                                                                                                                                                     ٠.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2;
                                                                                                                                                 σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 17; DB 2
Pred. No. 27;
0; Mismatches
                                                                                                                                                 DB 9
                                                                                                                                               Score 17; DB;
Pred. No. 27;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                    110000
310000
410000
510000
710000
1010000
1310000
1510000
1510000
1510000
1510000
1910000
1910000
                                                                                                                                                                                                                        100356 ATTATTGATTCTGTAGG 100340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 77339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LMFLCHR31
                                                                                                                                                                                                         18
                                                                                                                                                                                                                                                                                                                           fragments
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTATTGATTCTGTAGGT 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            89.5%;
                                                                                                                                               89.5%;
larity 100.0%;
Conservative
                                                                                                                                                                                                          CTGTAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                 200001

500001

500001

700001

11000001

1200001

1400001

1500001

1600001

1800001

1900001
                                                                                                                                                                                                                                                                                                                                                         100001
                                                                                                                                                                                                                                                                                                                                          Begin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity 100
17; Conservative
                                                                                                                                                                                                                                                                                                                            22
                                                                                                                                                                                                          ATTATTGATT
                                                                                                                                                               Local Similarity
nes 17; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                22)
                                                                                                                                                                                                                                                                                                                          Sequence split into
Fragment Name
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AC092456
                                                                                                                                                                                                                                                                                                                                      Fragment Name LMFLCHR31 00 LMFLCHR31 02 LMFLCHR31 04 LMFLCHR31 04 LMFLCHR31 06 LMFLCHR31 09 LMFLCHR31 11 LMFLCHR31 12 LMFLCHR31 15 LMFLCHR31 16 LMFLCHR31 16 LMFLCHR31 16 LMFLCHR31 10 LMFLCHR31 10 LMFLCHR31 10 LMFLCHR31 20 LMFLCHR31 20 LMFLCHR31 20 LMFLCHR31 20 LMFLCHR31 20 LMFLCHR31 20
misc_feature
                                misc_feature
                                                                                                                                                                                                                                                                                               02/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local S
Matches 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ന
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   77355
                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Continuation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM
                                                                                                                                                                                                                                                                                RESULT 22
LMFLCHR31
WPCOMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 23
AC092456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                            Matches
                                                                                                                                                                Best
                                                                                                                     ORIGIN
                                                                                                                                                                                                                                       d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ठ
                                                                                                                                                                                                           ð
```

will

.rge

Ŋ

```
Unpublished

In (published)

Bitren, L. Nusbaum, C., Lander, E., Allen, N., Anderson, M., Baker, J., Baldnin, J., Barna, N., Beckerly, R., Benn, J., Brown, A., Castly, J., Baldnin, J., Barna, N., Beckerly, R., Benn, J., Brown, A., Castly, J., Baldnin, J., Barna, N., Baker, D., Castle, J., Calngelo, M., Collins, S., Collymore, A., Cooke, D., Castle, D., Calsage, D., Calsage, D., Calsage, D., Calsage, D., Garti, J., Doyle, M., Perreitz, P., Fitshugh, M., Porrest, C., Funce, R., Gage, D., Galsagan, J. Gacdyna, S., Gilbert, D., Gratt, G., Rages, B., Hadcon, P., McCarna, K., McLaughlin, J., McDan, P., McGurk, A., McKernan, K., McLaughlin, J., Mardis, N., McCawan, P., McCarnan, K., McLaughlin, J., Malla, M., Morrisk, M., Morrow, J., Mychalecky, J., Naylor, J., Mnla, M., Stojanovic, N., Stone, C., Subramanan, A., Stange-Thoman, M., Stojanovic, N., Weberse, D., Rayla, Berter, J., Wux., Myman, D., Ye, W.J. and Zody, M. Mandler, J., Wux., Myman, D., Ye, W.J. and Zody, M. Mandler, J., Wux., Myman, D., Ye, W.J. and Zody, M. Mandler, J., Wux., Myman, D., Ye, W.J. and Zody, M. Mandler, J., Mux., Myman, D., Ye, W.J. and Zody, M. Lepacts were identified using RepethWaker:

Submitted (12-WW, 1999) Whitehead Institute Mux Teplaced gi-1914394.

All repacts were identified using RepethWaker:

Contect Mitched Institute Mux Myman, D., Ye, W.J. and Zody, M. Center for Ender States, Contect Submission.

Locater code: WIRS.

All repacts were identified using RepethWaker:

Contect sequence submission objection of Center for Genome Research

Contect sequence submission objection of Center for Genome Research

Contect sequence Submission objection of Center for Genome Research

Contect project name: Libra, States, Candon, Myman, D., Stone, Candon, Submission objection of Center Genome Waker, Myman, D., States, Candon, States, Candon, States, Candon, States
                     24-MAR-2000
                                                                                                                                                                                                                                                                                            Anderson, M.,
                                    unordered
                                                                                                                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 150070)
                     bp DNA linear H<sup>o</sup>
, WORKING DRAFT SEQUENCE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             of 1089 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100 bp
of 1092 bp in length
100 bp
                                                                                                                                                                                                                   and Lander, E.
                                                                                                                                                                                                                    Birren, B., Linton, L., Nusbaum, C. Homo sapiens, clone RP11-14A7
                     150070 k
RP11-14A7,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             contig
gap of
contig
gap of
contig
gap of
                                                                                                             DRAFT
                                                                                          AC007670.2 GI:7321636
HTG; HTGS PHASE1; HTGS
Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1089:
1189:
2281:
2381:
6681:
6781:
11902:
                                      clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              as soon as it
be preserved
                     AC007670
Homo sapiens
pieces.
                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                      Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1090
11190
2282
2382
6682
6782
                                                                                                                                                 ORGANISM
                                         DEFINITION
                                                                                                                                                                                                      REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                             REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          JOURNAL
                                                                            ACCESSION
                                                                                                                                                                                                                                                            JOURNAL
                                                                                             VERSION
KEYWORDS
       AC007670
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMMENT
                                                                                                                                SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 140805;
      f unknown length
of 9264 bp in length
f unknown length
g of 8842 bp in length
f unknown length
g of 23358 bp in length
f unknown length
g of 26827 bp in length.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          41916. .46824

/note="assembly_name:Contig44"

46925. .52358

/note="assembly_name:Contig45"

52459. .58556

/note="assembly_name:Contig46"
                                                                                                                                                                                                                                                                                                              /note="assembly_name:Contig28"
3642. .4805
/note="assembly_name:Contig29"
4906. .6516
/note="assembly_name:Contig32"
6617. .8152
/note="assembly_name:Contig33"
8253. .11125
/note="assembly_name:Contig34"
11226. .13188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         13289. .17124
/note="assembly_name:Contig37"
17225. .19911
/note="assembly_name:Contig38"
20012. .23136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0521. .113878 ___note="assembly_name:Contig51"
13979. .140805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8657. .65371
'note="assembly_name:Contig47"
5472. .72114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3242. .37167
note="assembly_name:Contig42"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5472. . / 2113
note="assembly_name:Contig48"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               note="assembly_name:Contig50"
0521. .113878
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /note="assembly_name:Contig52"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1226. .13188
note="assembly_name:Contig35"
3289. .17124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  13237. .28202
'note="assembly_name:Contig40"
8303. .33141
                                                                                                                                                                                                                                                                                    ....1975
'note="assembly_name:Contig27"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          note="assembly_name:Contig39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8303. .33141
note="assembly_name:Contig41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            17268. .41815 --
/note="assembly_name:Contig43
11916. .46824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 17; DB 2
Pred. No. 26;
0; Mismatches
                                                                                                                                                                                           sapiens'
nic DNA"
                                                                                                                                                                                                          mol_type="genomic_DN
db_xref="taxon:9606"
215 81478: contig c
479 81578: gap of u
579 90420: contig o
121 90520: gap of u
521 113878: contig of
179 113978: gap of ur
779 140805: contig of
Location/Qualifiers
1. .140805
                                                                                                                                                                                                                                                            clone="CTD-2155H16" . .1975
                                                                                                                                                                                                                                              chromosome="CTD"
                                                                                                                                                                                        organism="Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  °;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              89.5%;
I Similarity 100.0%;
17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AATTATTGATTCTGTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          58657
         72115
72215
81479
81579
90421
90521
113879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   misc_feature
                                                                                                                                                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                                                                                                                                                         feature
                                                                                                                                                                                                                                                                                                                                                                                             misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                misc feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local
                                                                                                                                                                           source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Loc
Matches
                                                                                                                                                                                                                                                                                   misc
                                                                                                                                                                                                                                                                                                                                                         misc
                                                                                                                                                        FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORIGIN
```

of 4300 bp in length 100 bp of 5121 bp in length

of

24885

24869 AATTATTGATTCTGTAG

g

8

24

RESULT

ďq

12

Mon May

```
Direct Submission
Submitted (15-MAY-2001) NIH Intramural Sec
Grovemont Circle, Gaithersburg, MD 20877,
3 (bases 1 to 153270)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Center code: NISC
Web site: http://www.nisc.nih.gov
Contact: nisc_zoo@nhgri.nih.gov
------ Project Information
----- project name: ceh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /organism="Pan troglodytes"
/mol_type="genomic DNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Summary Statistics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                mol_type="genomic_DNA"
db_xref="taxon:9598"
clone="RP43-168A12"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           168A12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   clone lib="RP43"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Center project name
Center clone name:
                                                                                                                                                                                                                                   to 153270)
                                                                                                                                                                                                                                                                                                                                                                                  Submission
                                                                                                                                                                                                                                     (bases 1
                                                                                                                                                                                                         Unpublished
                                                                                                                                                                                                                                                                                                                                                                 Green, E.D.
Direct Sub
                                                                                                                                                                                                                                                      Green, E.D.
Direct Sub
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            source
                                                                                                                                                                                                          JOURNAL
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                              REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                     JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                  JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                03-MAY-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   inkley, C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S.M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DNA linear HTG 03
WORKING DRAFT SEQUENCE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eute
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Pan
1 (bases 1 to 153270)
Akhter, N., Antonellis, A., Ayele, K., Beckstrom-Sternberg,
Benjamin, B., Blakesley, R.W., Bouffard, G.G., Breen, K., Br
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 150070;
f 100 bp
g of 7313 bp in length
f 100 bp
g of 8025 bp in length
f 100 bp
g of 9345 bp in length
f 100 bp
g of 14358 bp in length
f 100 bp
g of 14323 bp in length
f 100 bp
                                                                                                                                                                                                                                                                                                  length
                                                                                                                                                                                                                                                of 19030 bp in length 100 bp of 65074 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                               organism="Homo sapiens"

mol_type="genomic DNA"

db_xref="taxon:9606"

clone="RP11-14A7"

clone_lib="RPCI-11 Human Male BAC"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    vector_side:left"
19416._.27440
/note="assembly_fragment"
27541. .36885
/note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1. .1089
/note="assembly_fragment"
1190. .2281
/note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6782. .11902
/note="assembly_fragment"
12003. .19315
/note="assembly_fragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        65867. .84896
/note="assembly_fragment"
84997. .150070
/note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AC091661
Pan troglodytes clone RP43-168A12,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   382. .6681
note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               51444. .65766 / // note="assembly_fragment" 65867. .84896
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   36986. .. 51343
/note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 17;
Pred. No.
12002: gap of 10315: contig of 19415: gap of 1057440: contig of 105740: gap of 1057540: gap of 1057540: gap of 1057540: gap of 1057540: gap of 1057555: contig of 105755: contig of 105755: gap of 105755: gap of 105755: contig of 10575: con
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ordered pieces.
AC091661
AC091661.2 GI:20429317
HTG; HTGS PHASE2; HTGS DRAFT.
Pan troglodytes (chimpanzee)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           clone_end:SP6_____vector_side:right"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     48351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           clone end:T7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                89.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AATTATTGATTCTGTAG
                                                                                                                                                                                                                                                                                                                                          150070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  œ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2382.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   l Similarity
17; Conserv
   11903
12003
19316
19416
27441
27541
36886
36986
51344
51344
65867
84897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   48335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                              source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACO91661/c
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 misc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           misc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                     FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ದ್ದ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
```

```
Thomas, J.W.,
Brooks, S., Dietrich, N.L., Granite, S., Guan, X., Gupta, J., Haghighi, P., Hansen, N., Ho, S.-L., Idol, J.R., Karlins, E., Laric, P. Lee-Lin, S.-Q., Legaspi, R., Maduro, Q.L., Maduro, V.B., Margulies, E.H., Masiello, C., Maskeri, B., Mastrian, S.D., McCloskey, J.C., McDowell, J., Paguirigan, C., Pearson, R., Portnoy, M.E., Prasad, A., Schueler, M.G., Stantripop, S., Thomas, J.I. Thomas, P.J., Touchman, J.W., Tsurgeon, C., Vogt, J.L., Walker, M.A., Wetherby, K.D., Wiggins, L., Young, A., Zhang, L.-H. and Green, E.D., NISC Comparative Sequencing Initiative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The sequence data in this record represents an 'enhanced' version of a Phase 2 submission. Specifically, the indicated order and orientation of each sequence contig has been established using one or more of the following: read-pair data from individual subclones, overlaps with neighboring clones, alignment with available reference sequence (e.g., human), and/or confirmation by PCR testing. In addition, the sequence assembly is based on at least 8X average coverage in Q20 bases and has been reviewed to rule out gross misassemblies, the low-quality ends of sequence contigs have been trimmed away, and each base is associated with a Phrap-derived quality score.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          * NOTE: This is a 'working draft' sequence. It currently
* consists of 2 contigs. Gaps between the contigs
* are represented as runs of N. The order of the pieces
* is believed to be correct as given, however the sizes
* of the gaps between them are based on estimates that have
* provided by the submittor.
* This sequence will be replaced
* by the finished sequence as soon as it is available and
* by the finished sequence as soon as it is available and
* the accession number will be preserved.
* 103006 103105: contig of 103005 bp in length
* 103106 153270: contig of 50165 bp in length.
* Location/Qualifiers

1 . .153270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sum-of-contigs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Center,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Center,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gi:14042998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequencing vector: plasmid; n/a; 100% of reads Chemistry: Dye-terminator Big Dye; 100% of reads Assembly program: Phrap; version 0.990319
Consensus quality: 152627 bases at least Q40
Consensus quality: 152987 bases at least Q30
Consensus quality: 153127 bases at least Q20
Insert size: 123000; agarose-fp
Insert size: 153170; sum-of-contigs
Quality coverage: 13.06x in Q20 bases; agarose-fp
Quality coverage: 10.49x in Q20 bases; sum-of-contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Submitted (03-MAY-2002) NIH Intramural Sequencing Grovemont Circle, Gaithersburg, MD 20877, USA On May 3, 2002 this sequence version replaced gi:1------- Genome Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequencing
```

ائ

906

ı

-619

us-10

```
USA
                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                     21-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Louis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Craniata; Vertebrata; Euteleostomi
Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    63108
                                                                                                                                                                                                                                              Gaps
                                                                                  ceg)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Submitted (02-NOV-2001) Genome Sequencing Center, Washington University School of Medicine, 4444 Forest Park Parkway, St. MO 63108, USA
4 (bases 1 to 154436)
Waterston, R. H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Direct Submission
Submitted (01-FEB-2002) Genome Sequencing Center, Washington
University School of Medicine, 4444 Forest Park Parkway, St.
MO 63108, USA
5 (bases 1 to 154436)
                                                               /note="clone overlaps with GenBank Accession Number AC091718 clone RP43-184N18 (center project name ceg. 78757. .153270
/note="clone overlaps with GenBank Accession Number AC096879 clone RP43-179H6 (center project name clm) 103106. .153270
/note="assembly_fragment clone_end:SP6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ton:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ter
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              46.
                                                                                                                                                                                                                                                                                                                                                                                    seguer
                                                                                                                                                                                                                                                                                                                                                                     PRI
                                                                                                                                                                                                                   Length 153270;
                                                                                                                                                                                                                                                                                                                                                                    154436 bp DNA linear clone RP11-92A1 from 2, complete
                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99063792
9847074
2 (bases 1 to 154436)
Isak,A., Cotton,M. and Boyer,E.
The sequence of Homo sapiens BAC clone RP11-92A1
Unpublished (2001)
3 (bases 1 to 154436)
Waterston,R.H.
                                                                                                                                                                                                                                              ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sequence (1998)
                                                                                                                                                                                                                   2;
                                                                                                                                                                                                                   Score 17; DB 2; Pred. No. 25; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Center project name: H_NH0092A01
Drafting Center: WIBR
1. .103005
/note="assembly_fragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Cra
Mammalia; Eutheria; Primates; Cat
1 (bases 1 to 154436)
Sulston, J.E. and Waterston, R.
Toward a complete human genome se
Genome Res. 8 (11), 1097-1108 (15
                               ctor side:left" .4283
                                                                                                                                                                            vector side:right"
                                                                                                                                                                                                                                                                                                   50263
                                                                                                                                                                                                                                             ·;
                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens BAC clone 1
AC098817 AC019324
AC098817.3 GI:18464265
                                                                                                                                                                                                                                                                        th 89.5%;
Similarity 100.0%;
17; Conservative 0
                             clone end: T7
                                                                                                                                                                                                                                                                                                                                                                                                                                          (human)
                                       vector
                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                        AC098817
                                                    misc_feature
                                                                                             misc_feature
                                                                                                                                      misc feature
   misc feature
                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                 Local
                                                                                                                                                                                                                                                                                                                                                                                  DEFINITION
ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                             RESULT 26
AC098817/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          JOURNAL
                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                            KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMMENT
                                                                                                                                                                                                                                     Best
                                                                                                                                                                                                                                                                                                                                                                                                                                          SOURCE
                                                                                                                                                                                            ORIGIN
                                                                                                                                                                                                                                                                                                                                                                        LOCUS
                                                                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                            ઠે
```

this e insert of this overlapping a small overlap NOTICE: This sequence may not represent the entire clone. It may be shorter because we only sequence o clone sections once, or longer because we provide a between neighboring data submissions. This sequence was finished as follows unless otherwise noted:
all regions were double stranded, sequenced with an alternate
chemistry, or covered by high quality data (i.e., phred quality >=
30); an attempt was made to resolve all sequencing problems, such
as compressions and repeats; all regions were covered by sequence
from more than one subclone; and the assembly was confirmed by restriction digest

# MAPPING INFORMATION:

Mapping information for this clone was provided by Dr. John D. McPherson, Department of Genetics, Washington University, St. MO. For additional information about the map position of this sequence, see http://genome.wustl.edu/gsc

SOURCE INFORMATION:
The RPCI-11 human BAC library was made from the blood of one male donor, as described by Osoegawa, K., Woon, P.Y., Zhao, B., Frengen, E. Tateno, M., Catanese, J.J. and de Jong, P.J. (1998) An improved approach for construction of bacterial artificial chromosome libraries. Genomics 51:1-8. The clone may be obtained either from Research Genetics, Inc. (http://www.resgen.com) or Pieter de Jong and coworkers at http://www.chori.org

NEIGHBORING SEQUENCE INFORMATION: The clone sequenced to the left is RP11-345F13; the clone sequenced to the right is RP11-1290B4. Actual start of this clone is at base position 1 of RP11-92A1; actual end is at base position 154436 of

clone Data from AC092456 and AC007670 was used to finish this AC098817.

```
The sequence of AC019324 has been incorporated into AC098817
Location/Qualifiers
1. .154436
                                        /organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
/chromosome="2"
                                                                                       /map="2"
/clone="RP11-92A1"
/clone="RP11-92A1"
/clone lib="RPCI-11"
630. .1089
/rpt_family="ERV1"
1295. .1842
/rpt_family="ERV1"
1920. .1919
/rpt_family="MaLR"
2747. .1950
/rpt_family="MaLR"
2747. .3376
/rpt_family="ERV1"
3583. .3639
/rpt_family="AT_rich"
4256. .4319
/rpt_family="AT_rich"
6552. .6915
                                                                                                                                                                                                                                                                                                                                                                   /rpt_family="L1"
6921. .875
                                                                                                                                                                                                                                                                                                                                                                                             /rpt_family="L1"
8756. .9240
                                                                                                                                       repeat_region
                                                                                                                                                                                            repeat_region
                                                                                                                                                                                                                     repeat_region
                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                             repeat_region
                                                                                                                                                                                                                                                                                                  repeat_region
                                                                                                                                                                                                                                                                                                                            repeat_region
                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                           repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                      repeat_region
                   FEATURES
```

'rpt\_family="L1"

.

.rge

-619-906-5

us-10

(NID:94187184)

AI377331

(NID:g17876619)

BI692638

 $\mathbf{E}\mathbf{S}\mathbf{I}$ 

. 0

Gaps

.; 0

Indels

Length 154436;

linear HTG 10-JUL-2001, 6 unordered pieces.

```
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NOTE: This is a 'working draft' sequence. It currently consists of 6 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g of 14793 bp in length
f 100 bp
g of 40799 bp in length
f 100 bp
g of 19384 bp in length
f 100 bp
g of 48625 bp in length
f 100 bp
g of 11575 bp in length
f 100 bp
                                                                                                                                                                                                                                             Homo sapiens chromosome 6 clone RP11-600C19, AL357074
AL357074.3 GI:9863808
HTG; HTGS PHASE1; HTGS CANCELLED.
Homo sapiens (human)
                    sapiens
                                                       BM241349
                                                                              musculus
                                                                                                                    6
                                                                                                                  Score 17; DB
Pred. No. 25;
0; Mismatches
                                                                                                                   DB
25;
                   to Homo
                                                       EST
                                                                              to Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  contig gap of contig gap of
                                            21376. .21952
/note="similar to E
21435. .22319
/note="similar to M
(NID:g15655267)"
                                                                                                                                                                                95117 AATTATTGATTCTGTAG 95101
                /note="similar te60c10.x1"
21376. .21952
                                                                                                                                         ;
0
                                                                                                                                                                    17
                                                                                                                   89.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  14793:
14893:
55692:
55792:
75176:
75276:
123901:
124001:
135576:
                                                                                                                                                                    AATTATTGATTCTGTAG
                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                    sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                14794
14894
55693
55793
75177
75277
123902
124002
                                                                                                                              Similarity
17; Conser
                                                                  misc_feature
     misc_feature
                                         feature
                                                                                                                    Match
                                                                                                                              Best Local
Matches 1
                                                                                                                                                                                                                                                                    DEFINITION
ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                     SOURCE
ORGANISM
                                         misc
                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                            JOURNAL
                                                                                                                                                                                                                                RESULT 27
AL357074
                                                                                                                                                                                                                                                                                                          KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMMENT
                                                                                                                                                                                                                                                         LOCUS
                                                                                                                                                                                             <del>P</del>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Bos taurus EST BI898628 (NID:g16204051)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19702. .19793
/note="similar to Homo sapiens EST AL044154
(NID:95432379)"
19715. .19793
/note="similar to Homo sapiens EST BG877519
(NID:914254609)"
19717. .19784
/note="similar to Homo sapiens EST BE879309
                                                                                                                                                                                                                                                                                                                                             Homo sapiens EST BG877852
                                                                                                                                                                                                                                                                                                                                                                                                                     to Homo sapiens EST BE879309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AA577014
                                                                                                                                                                                                                                                                                                                                                                                                                                                ....ce="81milar to Homo sapiens EST BG877217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ....e="similar to Homo sapiens EST BE879309
(NID:g10328085)"
9717. .19778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BF769298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BE879309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BG877217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      to Homo sapiens EST BG877217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AW86781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  sapiens EST AW86781
                                                                                                                                                                                                                                                                                                                                                                 (NID:g12116665)"
19308. .19356
'note="similar to Homo"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sapiens EST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sapiens EST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         sapiens EST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sapiens EST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sapiens EST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       to Homo sapiens
                                                                                                                                                                                                 13506. .13545

/rpt_family="AT_rich"

13683. .13988

/rpt_family="Alu"

14427. .14533

/rpt_family="MaLR"

15067. .15094

/rpt_family="AT_rich"

15544. .15692

/rpt_family="L1"

18589. .18618

/note="similar to Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9423. .19778
note="similar to Homo
                                                                                    /rpt_family="L1"
11770. .11811
/rpt_family="AT_rich"
11925. .12123
/rpt_family="MIR"
12234. .12266
/rpt_family="(TG)n"
12295. .12871
/rpt_family="L1"
13506. .13545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      19442. .19775
'note="similar to Homo
(NID:g12117197)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   to Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo
                                                                                                                                                                                                                                                                                                                                           (NID:g14254942)"
19265. .19715
/note="similar to He
(NID:012111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           t
O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ဌ
9241. .9310
/rpt_family="L1"
9311. .10462
/rpt_family="L1"
9542. .9563
/rpt_family="AT_r
10466. .11792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   t
C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        note="similar to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (NID:g14254307) "
19702. .19908
/note="similar to
nm84f02.s1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NID:912117198)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (NID:g10328085)"
19492. .19514
                                                                                                                                                                                                                                                                                                                                                                                                                                (NID:g10328085) "
19308. .19356
/note="similar t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (NID:98001776)"
20807. .20867
/note="similar to
(NID:98001776)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (NID:g14254307)"
19894. .20466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .9449. .19514
note="similar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9492. .19514
note="similar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9717. .19778
note="similar
  repeat_region
                          repeat_region
                                                                                                  repeat_region
                                                                                                                             repeat_region
                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                              repeat_region
                                                                           repeat_region
                                                                                                                                                     repeat_region
                                                                                                                                                                              repeat_region
                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                                         repeat_region
                                                                                                                                                                                                                                                                                                                                 misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                                                                                                                                                      misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                             misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          misc feature
                                                   repeat
```

Research

·rge

S

```
Cambridge, MA 02141, USA version replaced gi:7230059
                                                                                                                                                                                                                                      Center project name: 10 M 11

Center clone name: 10 M 11

Sequencing vector: M13; M77815; 100% of reads
Chemistry: Dye-terminator Big Dye; 100% of reads
Assembly program: Phrap; version 0.960731
Consensus quality: 152125 bases at least Q40
Consensus quality: 156165 bases at least Q30
Consensus quality: 157620 bases at least Q20
Insert size: 163000; agarose-fp
Insert size: 163000; agarose-fp
Quality coverage: 4.6 in Q20 bases; agarose-fp
Quality coverage: 4.7 in Q20 bases; sum-of-contigs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NOTE: This is a 'working draft' sequence. It currently consists of 11 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will
                                                                                                                                  for Genome
                                        On Sep 10, 2000 this sequence version replaced gi:723 All repeats were identified using RepeatMasker:
Smit, A.F.A. & Green, P. (1996-1997)
http://ftp.genome.washington.edu/RM/RepeatMasker.html
                                                                                                                                                   Center code: WIBR
Web site: http://www-seq.wi.mit.edu
Contact: sequence submissions@genome.wi.mit.edu
------ Project Information
Center project name: L3104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g of 20169 bp in length f 100 bp g of 28060 bp in length f 100 bp g of 24956 bp in length f 100 bp g of 7403 bp in length.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g of 6745 bp in length
100 bp
g of 3854 bp in length
f 100 bp
g of 24128 bp in length
f 100 bp
g of 9772 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 f 100 bp
g of 9374 bp in length
f 100 bp
g of 10257 bp in length
f 100 bp
f 100 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              _lib="RPCI-11 Human Male BAC"
                                                                                                                   ------- Genome Center
Center: Whitehead Institute/ MIT Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              clone_end:SP6 --
vector_side:left"
6846. .10699
/note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          'note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1. .159790
/organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
/clone="RP11-10M11"
/clone_lib="RPCI-11 Humar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   l. .6745
/note="agsembly_fragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        32 152287: contig of 88 152387: gap of 1189790: contig of Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gap of contig gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            34927:
34927:
44899:
54273:
54373:
64630:
64730:
78902:
78902:
78902:
127231:
152287:
152387:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6845:
10699:
10799:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .0800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      as soon as it
be preserved
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99072
99172
127232
127332
152288
152388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10800
10800
34928
35028
44800
44900
54274
54374
64631
64731
78803
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               6846
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               misc feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURES
                                             COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sirren, B., Linton, L., Nusbaum, C., Lander, E., Allen, N., Anderson, M., Barren, B., Linton, L., Nusbaum, C., Lander, E., Allen, N., Anderson, M., Baldwin, J., Barna, N., Beckerly, R., Boguslavkiy, L., Boukhgalter, B., Brown, A., Castle, A., Colangelo, M., Collins, S., Collymore, A., Cooke, P., DeArellano, K., Dewar, K., Domino, M., Donelan, L., Doyle, M., Ferreira, P., FitzHugh, W., Forrest, C., Funke, R., Gage, D., Galagan, J., Gardyna, S., Grant, G., Hagos, B., Heaford, A., Horton, L., Howland, J.C., Johnson, R., Jones, C., Kann, L., Karatas, A., Klein, J., McEwan, P., McGurk, A., McKernan, K., McLaughlin, J., Meldrim, J., Meldrim, J., Meldrim, J., Moldrim, J., Norman, C.H., O'Connor, T., O'Donnell, P., Peterson, K., Pollara, V., Riley, R., Subramanian, A., Talamas, J., Tesfaye, S., Tirrell, A., Vassiliev, H., Vo, A., Wheeler, J., Wu, X., Wyman, D., Ye, W.J., Zimmer, A. and Zody, M.

Direct Submission

L Submitted (13-NOV-1999) Whitehead Institute/MIT Center for Genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10-SEP-2000
1 unordered
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 159790)
Birren, B., Linton, L., Nusbaum, C. and Lander, E.
Homo sapiens, clone RP11-10M11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AC013613 159790 bp DNA linear HTG Homo sapiens clone RP11-10M11, WORKING DRAFT SEQUENCE, 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 157800;
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .
0
                                                                                                                                                                                                                                                              vector_side:left"

14894. .55692

/note="assembly_fragment:00080
fragment_chain:1"
55793. .75176

/note="assembly_fragment:00503
fragment_chain:2"
75277. .123901
/note="assembly_fragment:01560
fragment_chain:2"
124002. .135576
/note="assembly_fragment:00932
fragment_chain:3"
135677. .157800
                                                                                                                                                                                    135677. .157800
/note="assembly_fragment:01303
fragment_chain:3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 17; DB pred. No. 25; 0; Mismatches
                                                                                 /organism="Homo sapiens"
/mol type="genomic DNA"
                                                                                                                                                        clone="RP11-600C19"
clone_lib="RPCI-11.3
                                                                                                 mol_type="genomic_Di
db_xref="taxon:9606"
chromosome="6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AC013613.4 GI:10047743
HTG; HTGS_PHASE1; HTGS_DRAFT
Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      106031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           89.5%;
                                                                                                                                                                                                                                              end:T7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity 17; Conser
                                 135677
                                                                                                                                                                                                                                                                                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 misc_feature
                                                                                                                                                                                                misc feature
                                                                                                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                                                                                                                                 misc feature
                                                                                                                                                                                                                                                                                                                                                                                                    misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       106015
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 28
AC013613/c
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VERSION
KEYWORDS
SOURCE
                                                  FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         <del>a</del>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                            29-MAY-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            63108, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    St. Louis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Loui
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Euteleostomi;
                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Waterston, R.H.
Waterston, R.H.
Direct Submission
Submitted (03-MAY-2002) Genome Sequencing Center, Washington
University School of Medicine, 4444 Forest Park Parkway, St.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequencing Center, Washington 4444 Forest Park Parkway, St.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S (bases 1 to reconstruction)
Waterston, R.
Direct Submission
Submitted (29-MAY-2002) Department of Genetics, Washington Submitted (29-MAY-2002) Department of Genetics, Washington Submitted (29-MAY-2002)
University, 4444 Forest Park Avenue, St. Louis, Missouri 62
University, 4444 Forest Park Avenue, St. Louis, Washington On May 3, 2002 this sequence version replaced gi:17386499.
On May 3, 2002 this sequence Version replaced gi:17386499.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Craniata; Vertebrata; Eutele
Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                           complete sequ
                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                           Length 159790;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2 (bases 1 to 164958)
Boatright, E., Kozlowicz, A. and Boyer, E.
The sequence of Homo sapiens BAC clone RP11-214014
Unpublished (2001)
3 (bases 1 to 164958)
                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                           linear
                                                                                                                                                                                                                                                                                                                                                                                            164958 bp DNA Homo sapiens BAC clone RP11-214014 from 4, AC099340.3 GI:20429590 HTG.
                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Center code: WUGSC
Web site: http://genome.wustl.edu/gsc
Contact: sapiens@watson.wustl.edu
------ Summary Statistics
Center project name: H_NH0214014
Drafting Center: WIBR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             sequence (1998)
                                                                                                                                                                                                                                          2;
                                                                                                                                                                                                                                          DB 2
                                                                                                                                                                                                                                        Score 17; DB
Pred. No. 25;
; Mismatches
                                                   /note="assembly_fragment"
64731. .78802
/note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mammalia; Eutheria; Primates; C
1 (bases 1 to 164958)
Sulston, J.E. and Waterston, R.
Toward a complete human genome
Genome Res. 8 (11), 1097-1108 (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3 (bases 1 to 164958)
Waterston, R.H.
Direct Submission
Submitted (09-NOV-2001) Genome
University School of Medicine,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                           Score
                                                                                                                                                                             119339
                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                     19
                                                                                                                                                                                                                                          89.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                     TTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                   TTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   University Sc.
MO 63108, USA
                                                                                                                                                                                                                         Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MO 63108, U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MO 63108,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99063792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9847074
                                                        misc_feature
misc_feature
                             misc_feature
                                                                                                                    misc feature
                                                                                                                                                misc_feature
                                                                                                                                                                                                                                                                                                                                 119355
                                                                                                                                                                                                                                                                                                                                                                                                                       DEFINITION
ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                             RESULT 29
AC099340/c
                                                                                      misc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               JOURNAL
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMMENT
                                                                                                                                                                                                             ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                          LOCUS
                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                   ð
```

NOTICE: This sequence may not represent the entire insert of thi clone. It may be shorter because we only sequence overlapping clone sections once, or longer because we provide a small overlap between neighboring data submissions.

This sequence was finished as follows unless otherwise noted:
all regions were double stranded, sequenced with an alternate
chemistry, or covered by high quality data (i.e., phred quality >=
30); an attempt was made to resolve all sequencing problems, such
as compressions and repeats; all regions were covered by sequence
from more than one subclone; and the assembly was confirmed by restriction digest.

Louis MAPPING INFORMATION:
Mapping information for this clone was provided by Dr. John D. McPherson, Department of Genetics, Washington University, St. MO. For additional information about the map position of this sequence, see http://genome.wustl.edu/gsc

SOURCE INFORMATION:
The RPCI-11 human BAC library was made from the blood of one male donor, as described by Osoegawa, K., Woon, P.Y., Zhao, B., Frengen, E. Tateno, M., Catanese, J.J. and de Jong, P.J. (1998) An improved approach for construction of bacterial artificial chromosome libraries. Genomics 51:1-8. The clone may be obtained either from Research Genetics, Inc. (http://www.resgen.com) or Pieter de Jong and coworkers at http://www.chori.org

NEIGHBORING SEQUENCE INFORMATION: The clone sequenced to the left is RP11-398H1; the clone sequenced to the right is RP11-307L18. Actual start of this clone is at base position 1 of RP11-214014; actual end is at base position 164958 of position 1 o RP11-214014.

Data from Polymorphisms exist between AC108045 and AC099340. AC107053 and AC108045 was used to finish AC099340.

```
nce of AC024369 has been incorporated into AC099340.
Location/Qualifiers
1. .164958
                                                    /organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
/chromosome="4"
/map="4"
/clone="RP11-214014"
/clone="RP11-214014"
/clone="RP11-214014"
/rpt_family="L1"
441. .529
/rpt_family="L1"
530. .682
/rpt_family="L1"
683. .998
/rpt_family="L1"
683. .998
/rpt_family="L1"
699. .1069
/rpt_family="L1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                      /rpt_family="L1"
2535. .2666
/rpt_family="Alu"
2668. .3178
/rpt_family="ERV1"
                                                                                                                                                                                                                                                                                                                               /rpt_family="AT_ri
1735. 1787
/rpt_family="MIR"
1791. .2025
/rpt_family="L1"
2034. .2347
/rpt_family="Alu"
2384. .2533
             The sequence
                                                                                                                                                                  repeat_region
                                                                                                                                                                                              repeat_region
                                                                                                                                                                                                                             repeat_region
                                                                                                                                                                                                                                                                                          repeat_region
                                                                                                                                                                                                                                                            repeat_region
                                                                                                                                                                                                                                                                                                                                                   repeat_region
                                                                                                                                                                                                                                                                                                                                                                                 repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                               repeat_region
                                                                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                             repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                             source
                            FEATURES
```

```
/rpt_family="MER2_type"
19062. .19362
/rpt_family="Alu"
19363. .19445
/rpt_family="MER2_type"
19581. .19912
                                                                                 /rpt_family="MER2_type'
4330. .4636
/rpt_family="Alu"
4751. .5062
/rpt_family="Alu"
5268. .5577
/rpt_family="Alu"
5916. .6071
/rpt_family="L1"
6093. .6183
/rpt_family="L1"
6093. .6183
/rpt_family="L1"
6709. .7002
/rpt_family="Alu"
6373. .6618
/rpt_family="L1"
6709. .7002
/rpt_family="Alu"
6709. .7002
/rpt_family="Alu"
7003. .7070
/rpt_family="Alu"
7076. .7310
/rpt_family="L1"
7328. .7558
/rpt_family="Alu"
7328. .7559
/rpt_family="L1"
7559. .7835
/rpt_family="Alu"
836. .8172
/rpt_family="Alu"
836. .8172
/rpt_family="MalR"
9161. .9663
/rpt_family="MIR"
91997. .114228
                                                                                          _type"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15767...16239

/rpt_family="L1"

16240..18114

/rpt_family="L1"

18117..18219

/rpt_family="Alu"

18230..18444

/rpt_family="L2"

18668..19061

/rpt_family="L2"

19062..19362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /rpt_family="L1"
|/rpt_family="Alu"
|4526..14941
|/rpt_family="L1"
|4925...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /rpt_family="L1"
15421. .15766
/rpt_family="Alu"
15767. .16239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /rpt_family="L1"
/4229. .1452
   /rpt_family="L1"
3544. 3774
/rpt_family="L1"
3752. 3898
/rpt_family="L1"
3908. 4293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                 repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         repeat_region
                       repeat_region
                                                   repeat_region
                                                                                                                                   repeat_region
                                                                                                                                                               repeat_region
                                                                                                                                                                                                                                               repeat_region
                                                                                                                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                                                                                            repeat_region
                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                             repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
repeat_region
                                                                              repeat_region
                                                                                                        repeat_region
                                                                                                                                                                                           repeat_region
                                                                                                                                                                                                                     repeat_region
                                                                                                                                                                                                                                                                            repeat_region
                                                                                                                                                                                                                                                                                                       repeat_region
```

```
unpublisher

(bases I to 172263)

Birren, B., Linton, L., Nusbaum, C., Lander, E., Ali, A., Allen, N., Anderson, S., Barna, N., Bastien, V., Bloom, T., Boguslavkiy, L., Anderson, S., Barna, N., Bastien, V., Bloom, T., Boguslavkiy, L., Boukhgalter, B., Brown, A., Camarata, J., Campoplano, A., Chang, J., Choppel, Y., Colangelo, M., Colling, S., Collymore, A., Cook, A., Cooke, P., DeArellano, K., Dewar, K., Diaz, J.S., Dodge, S., Faro, S., Ferreira, P., FitzHugh, W., Gage, D., Galagan, J., Gardyna, S., Gord, S., Goyette, M., Graham, L., Graham, E., Jones, R., Landers, T., Lehoczky, J., Levine, R., Lindblad-Toh, K., Liu, G., Mactonald, P., McKernan, K., Maldrim, J., Mathews, C., McCarthy, M., McKernan, K., Major, J., Mathews, C., McCarthy, M., McKernan, K., Major, J., Mathews, C., Norman, C.H., O'Connor, T., O'Donnell, P., O'Neil, D., Oliver, J., Peterson, K., Phunkhang, P., Flerre, N., Pollara, V., Raymond, C., Retta, R., Rieback, M., Riley, R., Rise, C., Rogov, P., Roman, J., Rosetti, M., Roy, A., Santos, R., Schauer, S., Schupback, R., Stanger, S., Schupback, R., Stanger, Homann, N., Subramanian, A., Taavis, N., Tasis, J., Vassiliev, H., Viel, R., Vo, A., Wilson, B., Wu, X., Wyman, D., Ye, W. J., Young, G., Zainoun, J., Zembek, L., Zimmer, A., and Zody, M.

L. Submitted (15-ARR-2002) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA

B. Fren, R. Nishaim, C. Lander F. Abriellail A. Allan, R. Nishaim, C. Lander F. Abriellail A. Allan, R. Nishaim, C. Lander F. Abriellaila
                                                                                                                                                                                                                                                                                                                       ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  09-MAR-2003
6 unordered
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Birren, B., Nusbaum, C., Lander, E., Abouelleil, A., Allen, N., Anderson, S., Arachchi, H.M., Barna, N., Bastien, V., Bloom, T., Anderson, S., Arachchi, H.M., Barna, N., Bastien, V., Bloom, T., Boguslavkiy, L., Boukhgalter, B., Camarata, J., Chang, J., Choepel, Y., Collymore, A., Cook, A., Cooke, P., Corum, B., DeArellano, K., Diaz, J.S., Dodge, S., Dooley, K., Dorris, L., Erickson, J., Faro, S., Ferreira, P., FitzGerald, M., Gage, D., Galagan, J., Gardyna, S., Graham, L., Grand-Pierre, N., Hafez, N., Hagopian, D., Hagos, B., Hall, J., Horton, L., Hulme, W., Iliev, I., Johnson, R., Jones, C., Kamat, A., Karatas, A., Kells, C., Landers, T., Levine, R., Liu, G., Lui, A., Mabbitt, R., MacLean, C., Macdonald, P., Major, J., Manning, J., Matthews, C., McCarthy, M., Meldrim, J., Meneus, L., Mihova, T., Mlenga, V., Murphy, T., Naylor, J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
1 (bases 1 to 172263)
Birren, B., Nusbaum, C. and Lander, E.
Mus musculus, clone RP24-462F23
                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AC119280 172263 bp DNA linear HTG Mus musculus clone RP24-462F23, WORKING DRAFT SEQUENCE,
                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                              164958;
                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                  Length
                                                                                                                                                                                                                                                                                                                       .;
0
                                                                                                                                                                                                                                                                  9;
                                                                                                                                                                                                                                                            ore 17; DB 9 red. No. 25; Mismatches
                                                                                                                                                                                                                                                               Score 17;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             pieces.
AC119280
AC119280.3 GI:28893724
HTG; HTGS PHASE1; HTGS DRAFT
Mus musculus (house mouse)
/rpt_family="Alu"
19924. .20305
/rpt_family="Alu"
20329. .20926
/rpt_family="L1"
20927. .21239
/rpt_family="Alu"
21240. .21267
                                                                                                                                                                                                                                                                                                                                                                               3 TTATTGATTCTGTAGGT 19
|||||||||||||||
70971 TTATTGATTCTGTAGGT 70955
                                                                                                                                                                                                                                                                                                                         ;
0
                                                                                                                                                                                                                                                              89.5%;
                                                                                                                                                                                                                                                                                      Similarity 100.7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Unpublished
                                repeat_region
                                                                                                                                                                                                          repeat_region
                                                                                            repeat_region
                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                                                                                                      17;
                                                                                                                                                                                                                                                                  Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AC119280/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                               Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                              В
                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3
```

.

ö

```
, Rogov, P., ., Smith, C.,
                                                                                                                                                                                                                                                                                                                  for Genome
                                                                                                                                                                           . М.,
. В., Wu, X.
                                                                                                                                                                                                                                                and Zody, M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  esearch
Nguyen, C., Nicol, R., Norbu, C., O'Connor, T., O'Donnell, P., O'Neil, D., Oliver, J., Peterson, K., Phunkhang, P., Pierre, N., Rachupka, A., Ramasamy, U., Raymond, C., Retta, R., Rise, C., Rog Roman, J., Schauer, S., Schupback, R., Seaman, S., Severy, P., St Spencer, B., Stange-Thomann, N., Stojanovic, N., Stubbs, M., Talamas, J., Tesfaye, S., Theodore, J., Topham, K., Travers, M., Vassiliev, H., Venkataraman, V.S., Viel, R., Vo, A., Wilson, B., Wyman, D., Young, G., Zainoun, J., Zembek, L., Zimmer, A. and Zoc Direct Submission
Submitted (09-MAR-2003) Whitehead Institute/MIT Center for (Research, 320 Charles Street, Cambridge, MA 02141, USA On Mar 9, 2003 this sequence version replaced gi:28626749.
All repeats were identified using RepeatMasker:
Smit, A.F.A. & Green, P. (1996-1997)
http://ftp.genome.washington.edu/RM/RepeatMasker.html
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NOTE: This is a 'working draft' sequence. It currently consists of 6 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
                                                                                                                                                                                                                                                                                                                                                                                  9
                                          Pierre, N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               for Genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          agarose-fp
sum-of-contigs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100 bp
of 106222 bp in length.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g of 1342 bp in length 100 bp g of 1293 bp in length f 100 bp g of 4805 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100 bp
of 10652 bp in length
100 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   47449 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ------ Genome Center
Center: Whitehead Institute/ MIT Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Male Mouse BAC"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1. .1342
/note="assembly_fragment"
1443. .2735
/note="assembly_fragment"
2836. .7640
/note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /organism="Mus musculus"
/mol_type="genomic DNA"
/db_xref="taxon:10090"
/clone="RP24-462F23"
/clone_lib="RPCI-24 Male N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         7741. .18392
/note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note="assembly_fragment
66042. .172263
/note="assembly_fragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 1342: contig of 1442: gap of 16 2735: contig of 2835: gap of 16 7640: contig of 7740: gap of 16 7740: gap of 16 7740: gap of 16 65941: contig of 66041: gap of 16 65941: contig of 172263: con
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             organism="Mus
mol_type="qend
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1343
1443
2736
2836
7641
7741
18393
65942
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                misc feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        misc
                                                                                                                                                                                                                                                                          TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURES
                                                                                                                                                                                                                                                                                                                                                                          COMMENT
```

```
28-JAN-2003
                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;
Cercopithecinae; Papio.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8717
                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   otherwise noted:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              was confirmed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                all regions were double-stranded, sequenced with an alternate chemistry, or covered by high quality data (i.e., phred quality >= 30); an attempt was made to resolve all sequencing problems, such as compressions and repeats; all regions were covered by at least one plasmid subclone or more than one M13 subclone; and the assembly was confirmed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Direct Submission
Submitted (28-JAN-2003) NIH Intramural Sequencing Center,
Grovemont Circle, Gaithersburg, MD 20877, USA
On Jul 18, 2002 this sequence version replaced gi:18642737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Direct Submission
Submitted (02-NOV-2001) NIH Intramural Sequencing Center,
Grovemont Circle, Gaithersburg, MD 20877, USA
3 (bases 1 to 182644)
Green, E.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Direct Submission
Submitted (18-JUL-2002) NIH Intramural Sequencing Center,
Grovemont Circle, Gaithersburg, MD 20877, USA
4 (bases 1 to 182644)
                                                                                                                                                                                                                                 PRI
                                                                                           ·;
                                                                                                                                                                                                                                DNA linear complete sequence.
                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Center: NIH Intramural Sequencing Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   finished as follows unless
                                                                                          ·;
                                                            2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 17; DB 2; Pred. No. 25; 0; Mismatches
                                                                                                                                                                                                                          Papio anubis clone RP41-367L14, AC098811
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Genome Center
clone_end:T7
vector_side:right"
                                                                                                                                                                                                                                                                                                         (olive baboon)
                                                                                                                                                      57718
                                                         th 89.5%; Sc
Similarity 100.0%; F
17; Conservative 0;
                                                                                                                                                                                                                                                                            GI:21903573
                                                                                                                       17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (bases 1 to 182644)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          by restriction digest.
                                                                                                                       1 AATTATTGATTCTGTAG
                                                                                                                                        57734 AATTATTGATTCTGTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sequence was
                                                                                                                                                                                                                                                                                                       Papio anubis
Papio anubis
                                                                                                                                                                                                                                                                           AC098811.3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Green, E.D.
Direct Sub
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Green, E.D
                                                           Query Match
                                                                           Best Local
                                                                                                                                                                                               RESULT 31
AC098811/c
                                                                                                                                                                                                                                            DEFINITION
                                                                                                                                                                                                                                                                                                                       ORGANISM
                                                                                                                                                                                                                                                        ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JOURNAL
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
AUTHORS
TITLE
                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AUTHORS
                                                                                                                                                                                                                                                                                         KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMMENT
                             ORIGIN
```

J. W.

of

CLONE LENGTH: This sequence represents the entire insert

and Zody, M

Zimmer, A.

```
50297 TTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  l Similarity
17; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local S
Matches 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       source
                                                                                                                       REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      JOURNAL
                                                        JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE
                              TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ਠੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Birren, B., Linton, L., Nusbaum, C., Lander, E., Ali, A., Allen, N., Anderson, S., Barna, N., Bastien, V., Boguslavkiy, L., Boukhgalter, B., Anderson, S., Barna, N., Bastien, V., Boguslavkiy, L., Boukhgalter, B., Brown, A., Camarata, J., Campopiano, A., Chang, J., Chazaro, B., Choepel, Y., Colangelo, M., Collins, S., Collymore, A., Cook, A., Cooke, P., DeArellano, K., Dear, D., Galagan, J., Gardyna, S., Gord, S., Goyette, M., Graham, L., Gardyna, S., Gord, S., Goyette, M., Graham, L., Grand-Pierre, N., Hagos, B., Heaford, A., Horton, L., Hulme, W., Iliev, I., Johnson, R., Jones, C., Kamat, A., Karatas, A., Kells, C., LaRocque, K., Liu, G., Macdonald, P., Major, J., Marquis, N., Matthews, C., Macdonald, P., Major, J., Marquis, N., Matthews, C., Morbu, C., Norman, C.H., O'Connell, P., Norly, C., Norman, C.H., O'Connell, P., O'Connell, P., O'Connell, P., O'Connell, P., O'Connell, P., Peterson, K., Phunkhang, P., Pierre, N., Pollara, V., Raymond, C., Retta, R., Rieback, M., Santos, R., Schauer, S., Schupback, R., Stange-Thomann, N., Stojanovic, N., Stange, N., Subramanian, A., Trajallio, J., Vassilkev, H., Viel, R., Vo, A., Wilson, B., Wu, X., Wyman, D., Ye, W.J., Young, G.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           29-SEP-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
1 (bases 1 to 183774)
Birren, B., Nusbaum, C. and Lander, E.
Mus musculus chromosome 7, clone RP23-310N5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                              of
   overlapp:
and end
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 182644;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           183774 bp DNA linear ne 7 clone RP23-310N5 map 7, ed pieces.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
this clone unless otherwise noted. If there are clones, the overlaps are noted in the beginning the Features section.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HTGS_PHASE2; HTGS_FULLTOP; HTGS_ACTIVEFIN musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    114474. .114497
/note="single clone coverage"
143993. .144076
/note="single clone coverage"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      coverage"
                                                                                                                                                                                                                                                                                                                                              coverage"
                                                                                                                                                                                                                                                                                                                                                                                                            coverage"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            coverage"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          coverage"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                   /organism="Papio anubis"
/wol_type="genomic DNA"
/db_xref="taxon:9555"
/clone="RP41-367L14"
/clone_lib="RP41"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 17;
Pred. No.
                                                                                                                                                                                                                                                                                                      /octe="single clone compared by the compared b
                                                                                          Location/Qualifiers
1. .182644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        14483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mus musculus chromosome PROGRESS ***, 2 ordered
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GI:52839788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2 ATTATTGATTCTGTAGG 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               89.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          14499 ATTATTGATTCTGTAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        l Similarity
17; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AC102150
AC102150.9
HTG; HTGS_P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AC102150
                                                                                                                                                                                                                                                                                                                      misc feature
                                                                                                                                                                                                                                                                                                                                                                               misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                 misc feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Ma.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Match
                                                                                                                                 source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 32
AC102150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        KEYWORDS
                                                                                                   FEATURES
```

VERSION

ORIGIN

g

8

SOURCE

. . .

```
Birren, B., Nusbaum, C., Lander, E., Abouelleil, A., Allen, N., Anderson, S., Arachchi, H.M., Barna, N., Bastien, V., Banderson, M., Anderson, S., Arachchi, H.M., Barna, N., Bastien, V., Bloom, T., Boguslavkiy, L., Boukhgalter, B., Camarata, J., Chang, J., Choepel, Y., Collymore, A., Cook, A., Cooke, P., Corum, B., Choepel, Y., Collymore, A., Cook, P., Corum, B., Calagan, J., Faro, S., Ferreira, P., FitzGerald, M., Gage, D., Galdgan, J., Hagos, B., Hall, J., Horton, L., Hulme, W., Hagos, B., Hall, J., Horton, L., Hulme, W., Iliev, I., Johnson, R., Lindblad-Toh, K., Liu, G., Liu, X., Lui, A., Mabbitt, R., MacLean, C., Macdonald, P., Major, J., Manning, J., Mathews, C., Macdonald, P., Major, J., Mihova, T., Micol, R., Norbu, C., O'Connor, T., O'Donnell, P., O'Neil, D., Oliver, J., Peterson, K., Phunkhang, P., Pierre, N., Rachupka, A., Ramasamy, U., Raymond, C., Retta, R., Rise, C., Rogov, P., Roman, J., Schauer, S., Schupback, R., Stojanovic, N., Stubbs, M., Talamas, J., Tesfaye, S., Theodore, J., Topham, K., Travers, M., Vassiliev, H., Venkataraman, V.S., Viel, R., Vo, A., Milson, B., Wu, X., Wyman, D., Young, G., Zainoun, J., Zembek, L., Zimmer, A. and Zod, M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Topham, K., Travers, M., Vassiliev, H., Venkataraman, V.S., Viel, R., Vo, A., Wilson, B., Wu, X., Wyman, D., Young, G., Zainoun, J., Zembek, L., Zimmer, A. and Zody, M.

Zimmer, A. and Zody, M.

Direct Submission

Birect Submission

Con Sep 29, 2004 this sequence version replaced gi:52782635.

All repeats were identified using RepeatMasker:

Smit, A.F.A. & Green, P. (1996-1997)

http://ftp.genome.washington.edu/RM/RepeatMasker.html

Center: Whitehead Institute/MIT Center for Genome Research

Center: work will with the context of the context
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                 Genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   * NOTE: This is a 'working draft' sequence. It currently
* consists of 2 contigs. Gaps between the contigs
* are represented as runs of N. The order of the pieces
* is believed to be correct as given, however the sizes
* of the gaps between them are based on estimates that have
* provided by the submittor.
* This sequence will be replaced
* by the finished sequence as soon as it is available and
* the accession number will be preserved.

* 72244: contig of 72244 bp in length
* 72245 72344: gap of unknown length
* 72345 183774: contig of 111430 bp in length.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                 for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                      Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 183774;
                                                                                                 Whitehead Institute/MIT Celtreet, Cambridge, MA 02141,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Web site: http://www-seq.wi.mit.edu
Contact: sequence_submissions@broad.mit.edu
------- Project Information
Center project name: L18115
Center clone name: 310_N_5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Female Mouse BAC"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 17; DB 2; Pred. No. 24; 0; Mismatches (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1. .183774
/organism="Mus musculus"
/mol_type="genomic DNA"
/db_xref="taxon:10090"
/chromosome="7"
Zainoun, J., Zembek, L., Zimmer, Direct Submission Submitted (23-NOV-2001) Whitek Research, 320 Charles Street, 3 (bases 1 to 183774)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              clone="RP23-310N5"
clone_lib="RPCI-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             50313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      89.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTATTGATTCTGTAGGT
```

SOURCE

```
RESULT 34
AL929408/c
LOCUS
                                                   misc_
                                                                                                                                                                                                                                                                                                                                                                                                                          DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMMENT
                                                                                                                                                                                                         ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOURCE
                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                     ð
                                    17-AUG-2004
                                                                                                                                                                                                                                                                                                                                                                              Park
                                                                                                                                                          Craniata; Vertebrata; Euteleostomi;
Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                   orest
                                                                                                                                                                                                                                                                                                                                                                              Forest
                                                                                                                                                                                                                                                                                                                                                                                                         gi:22748525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NOTE: This is a 'working draft' sequence. It currently consists of 6 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will
                                48 bp DNA linear HTG clone RP24-342G5, WORKING DRA
                                                                                                                                                                                                                                                                                                                                                                              4444
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Center
                                                                                                                                                                                                                                                                                               Genome Sequencing Center, 3108, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           of 1097 bp in length
unknown length
g of 1525 bp in length
unknown length
g of 1399 bp in length
unknown length
                                                                                                                                                                                                                                                                                                                                                                            Center,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     of 84772 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequencing vector: M13; 0%
Sequencing vector: M13; 0%
Sequencing vector: plasmid; 100%
Chemistry: Dye-primer ET; 0% of reads
Chemistry: Dye-terminator Big Dye; 100% of reads
Assembly program: Phrap; version 0.990319
Consensus quality: 192105 bases at least Q40
Consensus quality: 192564 bases at least Q20
Consensus quality: 192894 bases at least Q20
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Center: Washington University Genome Sequencing
                                                                                                                                                                                                                                                                                                                                                                        l (17-AUG-2004) Genome Sequencing Cente
St. Louis, MO 63108, USA
7, 2004 this sequence version replaced
                                                                                                           HTGS_ACTIVEFIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      of 19108 bp in unknown length of 86247 bp in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   unknown
                                                                                                                                                                                                                     clone
                                                                                                                                                                                                                                                                 and Waterston, R.H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               organism="Mus musculus
mol type="genomic DNA"
                             AC133083

Mus musculus chromosome 12 clon SEQUENCE, 6 unordered pieces.
AC133083.
AC133083.2 GI:51315649
HTG; HTGS PHASE1; HTGS DRAFT; H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /mol_type="genomic DNA'/db_xref="taxon:10090"/chromosome="12"/clone="RP24-342G5"
                                                                                                                                                                                                                                                                                                                                                                                                                                         Center
                                                                                                                                                      Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
1 (bases 1 to 194648)
                                                                                                                                                                                                                                                                                                             63108,
                                                                                                                                                                                                                    of Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 1097: contig o

1197: gap of u

2722: contig o

2822: gap of u

4221: contig o

4321: gap of u

22 23429: contig o

23529: gap of u

109776: contig o

109776: gap of u

109876: gap of u
                                                                                                                                                                                                                                                                                                                                                                                                                                         Genome
                                                                                                                                                                                                                                                                                             d (06-SEP-2002)
St. Louis, MO 6
s 1 to 194648)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1097: CC
1197: G
2722: C
2822: C
4221: C
4321: C
23429:
23529:
109776:
                                                                                                                                                                                                                                                    to 194648)
                                                                                                                                                                                                                                                  2 (bases 1 to 1946
McPherson, J.D. and
Direct Submission
Submitted (06-SEP-2
                                                                                                                                                                                                                                                                                                                                                           Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             be preserved
                                                                                                                                                                                          Wilson, R.K.
The sequence (Unpublished)
                                                                                                                                          Mus musculus
                                                                                                                                                                                                                                                                                                                            3 (bases 1 Wilson, R.K. Direct Subm Submitted (
                                                                                                                                                                                                                                                                                                                                                                               Parkway, St
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1098
1198
2723
2823
4222
4322
23430
23530
109777
                                                                                                                                                                                                                                                                                                              Parkway,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    source
                                              DEFINITION
                                                                                                                                         ORGANISM
                                                                                                                                                                                                AUTHORS
                                                                                                                                                                                                                                                 REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                           REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                         TITLE
JOURNAL
                                                                            ACCESSION
                                                                                                                                                                                      REFERENCE
                                                                                                                                                                                                                                   JOURNAL
                                                                                           VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                JOURNAL
RESULT 33
AC133083
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURES
```

COMMENT

```
During sequence assembly data is compared from overlapping clones. Where differences are found these are annotated as variations together with a note of the overlapping clone name. Note that the variation annotation may not be found in the sequence submission corresponding to the overlapping clone, as we submit sequences with only a small overlap as described above.

This sequence was finished as follows unless otherwise noted: all regions were either double-stranded or sequenced with an alternate chemistry or covered by high quality data (i.e., phred quality >= 30); an attempt was made to resolve all sequencing problems, such as compressions and repeats; all regions were covered by at least one plasmid subclone or more than one M13 subclone; and the assembly was confirmed by restriction digest, except on the rare occasion of the clone being a YAC.

The following abbreviations are used to associate primary accession numbers given in the feature table with their source databases:

Em:, EMBL; Sw:, SWISSPROT; Tr:, TREMBL; Wp:, WORMPEP; Information on the WORMPEP database can be found at http://www.sanger.ac.uk/Projects/C_elegans/wormpep RP23-456B2 is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Howden, r.

Direct Submission
Submitted (21-NOV-2002) Wellcome Trust Sanger Institute, Hinxton, Cambridgeshire, CB10 1SA, UK. E-mail enquiries:
humquery@sanger.ac.uk Clone requests: clonerequest@sanger.ac.uk
On Nov 19, 2002 this sequence version replaced gi:24940059.
Sequence from the Mouse Genome Sequencing Consortium whole genome shotgun may have been used to confirm this sequence. Sequence data from the whole genome shotgun alone has only been used where it has a phred quality of at least 30.

------ Genome Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ROD 21-NOV-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Craniata; Vertebrata; Euteleostomi;
Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AL929408 196915 bp DNA linear ROD 2:
Mouse DNA sequence from clone RP23-456B2 on chromosome 4,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 194648;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ;
0
1. .1097
/note="assembly_name:Contig4"
1198. .2722
/note="assembly_name:Contig5"
2823. .4221
/note="assembly_name:Contig6"
4322. .23429
/note="assembly_name:Contig7"
23530. .109776
/note="assembly_name:Contig8"
clone_end:T7
                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 2;
                                                                                                                                                                                                                                                                                                                                           109877. .194648
/note="assembly_name:Contig9"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Web site: http://www.sanger.ac.uk
                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 17;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Contact: humquery@sanger.ac.uk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
1 (bases 1 to 196915)
                                                                                                                                                                                                                                                                             clone_end:T7
vector_side:right"
109877. .194648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       95487 TTATTGATTCTGTAGGT 95503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GI:25136793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19
                                                                                                                                                                                                                                                                                                                                                                                                                                          89.5%;
100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity 100 17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AL929408.3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 (bases
Howden, P.
                                                              misc_feature
         misc_feature
                                                                                                                 feature
                                                                                                                                                                    misc_feature
                                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                                                                                                                  misc feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local
Matches 1
                                                                                                                                                                                                                                                                                                                                                                                                                                             Match
```

Mon

ORIGIN

g

ઠે

```
source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                               JOURNAL
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       E Martus.
S Munzay, D. Marie., Marzker, M. Lee., Abramzon, S., Adams, C., Alder, J.,
Allen, C., Allen, H., Alabrooks, S., Amin, A., Anguiano, D.,
Anyalebechi, V., Aoyagi, A., Ayodeji, M., Baca, E., Baden, H.,
Baddwin, D., Banderanaike, D., Barber, M., Baratead, M., Benahmed, P.,
Baddwin, D., Banderanaike, D., Barber, M., Baratead, M., Benahmed, P.,
Bayant, N., Buhay, C., Burch, P., Burrell, K., Calderon, E.,
Cardenas, V., Carter, K., Cavacos, I., Ceasar, H., Center, A., D'Souza, L.,
Chacko, J., Chacko, D., Chen, G., Coyle, M., Cree, M., D'Souza, L.,
Davila, M.L., Davis, C., Davy-Carroll, L., De Anda, E., Baves, K.,
Delgado, O., Davys, C., Davy-Carroll, L., De Anda, B., Baves, K.,
Depar, H., Dugan-Rocha, S., Dunn, A., Durbin, K., Duvah, B., Baves, K.,
Egan, A., Beoctto, M., Eugene, C., Evans, C.A., Falls, T., Poster, P.,
Fernandez, S., Finley, M., Flagg, N., Forbes, L., Foster, M., Gebregeorgis, E., Geer, K., Gill, R., Grady, M., Gherra, W., Garera, W.,
Gebregeorgis, E., Geer, K., Gill, R., Grady, M., Gherra, W.,
Gebregeorgis, E., Hands, P., Handerson, N., Hernandez, M.,
Harvey, Y., Havjak, P., Hawes, A., Henderson, N., Hernandez, M.,
Harvey, Y., Havjak, P., Hawes, A., Henderson, N., Hernandez, M.,
Jackson, L., Jacob, L., Jiang, H., Johnson, B., Johnson, R., Johnson, R.,
Johnson, B., Howells, S., Huly, S., Khan, Z., King, L., Kovar, C.,
Liu, J., Liu, W., Liu, Y., London, P., Longacre, S., Lopez, J.,
Liu, J., Liu, W., Liu, Y., London, P., Longacre, S., Marien, E.,
Milosavljevic, A., Miner, G., Martin, R., Mangum, B., Mandy, P., Marcin, S., Munidasa, M., Markelben, C., Okavkon, G., Peran, J., Lu, W., Liu, Y., Dowon, S., Munidasa, M., Markelben, C., Wandyan, R., Perez, L., Perez, L., Parake, K., Parke, K., Paster, R., Pelly, S., Relly, M., Ren, Y., Reyter, R., Reilly, M., Ren, Y., Reyter, R., Riggs, F., Parke, R., Phazo, M., Ren, Y., Reyter, R., Riggs, F., Reilly, M., Ren, Y., Revter, 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         12-OCT-2002
PROGRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Rattus norvegicus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
from the RPCI-23 Mouse PAC Library constructed by the group of Pieter de Jong. For further details see http://www.chori.org/bacpac/home
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         . linear HTG
                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                Length 196915
                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HTG; HTGS_PHASE1; HTGS_DRAFT; HTGS_ENRICHED Rattus norvegicus (Norway rat)
                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
0
                                                                                                                                                                                                                                                                                                                                                                                     DB 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Rattus norvegicus clone CH230-457H17, ***, 3 unordered pieces.
                                                                                                                                                                                                                                                                                                                                                                                                            24;
                                                                                                                                                                                                                                                                                                                                                                                  Score 17; DB; Pred. No. 24; 0; Mismatches
                                                                                                                                                      /organism="Mus musculus"
/mol_type="genomic DNA"
/db_xref="taxon:10090"
/chromosome="4"
/clone="RP23-456B2"
/clone_lib="RPCI-23"
                                                                               VECTOR: pBACe3.6.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GI:23908210
                                                                                                                                                                                                                                                                                                                                                                                     89.5%;
larity 100.0%;
Conservative
                                                                                                                                       .196915
                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AC119027
AC119027.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Rattus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       KESULT 35
AC119027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       KEYWORDS
                                                                                                               PEATURES
```

SOURCE

```
University of the page of the 
                          Rives, C., Rodkey, T., Rojas, A., Rose, M., Rose, R., Ruiz, S.J.,
Sanders, W., Savery, G., Scherer, S., Scott, G., Shatsman, S., Shen, H.,
Shetty, J., Shvartsbeyn, A., Sisson, I., Sitter, C.D., Swajs, D.,
Sneed, A., Sodergren, E., Song, X.-Z., Sorelle, R., Sosa, J.,
Steimle, M., Strong, R., Sutton, A., Svatek, A., Tabor, P., Taylor, C.,
Taylor, T., Thomas, N., Thomas, S., Tingey, A., Trejos, Z., Usmani, K.,
Valas, R., Vera, V., Villasana, D., Waldron, L., Walker, B., Wang, J.,
Williams, G., Willson, R., Wleczyk, R., Wooden, H., Worley, K.,
Wright, D., Wright, R., Wu, J., Yakub, S., Yen, J., Yoon, L., Yoon, V.,
Yu, F., Zhang, J., Zhou, J., Zhou, X., Zhao, S., Dunn, D., von
Niederhausern, A., Weiss, R., Smith, D.R., Holt, R.A., Smith, H.O.,
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Web site: http://www.hgsc.bcm.tmc.edu/
Contact: hgsc-help@bcm.tmc.edu
Contact: hgsc-help@bcm.tmc.edu
Contact: hgsc-help@bcm.tmc.edu
Contact: hgsc-help@bcm.tmc.edu
Center project Information
Center clone name: GVXM
Center clone name: CH230-457H17
Center clone name: CH230-457H17
Center clone name: CH230-bases at least Q40
Consensus quality: 167882 bases at least Q40
Consensus quality: 170782 bases at least Q20
Consensus quality: 172278 bases; sum-of-contigs estimation
Quality coverage: 5x in Q20 bases; sum-of-contigs estimation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NOTE: Estimated insert size may differ from sequence length (see http://www.hgsc.bcm.tmc.edu/docs/Genbank_draft_data.html)
NOTE: This is a 'working draft' sequence. It currently consists of 3 contigs. The true order of the pieces is not known and their order in this sequence record is
Ruiz, S.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 195718: contig of 195718 bp in length
9 195818: gap of unknown length
9 197296: contig of 1478 bp in length
17 197396: gap of unknown length
17 199373: contig of 1977 bp in length
Location/Qualifiers
1. 199373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Center: Baylor College of Medicine Center code: BCM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 be preserved
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 195719
195819
197297
197397
```

```
as soon as
be preserve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local Similarity
nes 17; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1046
62114
62214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     56464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AC148095/c
                                                                                                                                                                                                                                                                                                                                                               TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      E (bases 1 to 204308)

Birren, B., Nusbaum, C., Lander, E., Ali, A., Allen, N., Anderson, S., Barren, B., Nusbaum, C., Lander, E., Ali, A., Allen, N., Anderson, S., Barra, N., Bastien, V., Bloom, T., Boguslavkiy, L., Boukhgalter, B., Camarata, J., Chang, J., Chazaro, B., Choepel, Y., Collymore, A., Cooke, P., DeArellano, K., Dewar, K., Diaz, J.S., Dodge, S., Faro, S., Gord, S., Graham, L., Grand-Pierre, N., Hafez, N., Hafez, N., Hages, B., Horton, L., Hulme, W., Iliev, I., Johnson, R., Jones, C., Kamat, A., Karatas, A., Kells, C., Landers, T., Levine, R., Lindblad-Toh, K., Liu, G., MacLean, C., Macdonald, P., Major, J., Matthews, C., McCarthy, M., Meldrim, J., Meneus, L., Mihova, T., Menga, V., Murphy, T., Naylor, J., Nguyen, C., Nicol, R., Norbu, C., Norman, C.H., O'Connor, T., O'Donnell, P., O'Neil, D., Oliver, J., Peterson, K., Phunkhang, P., Pierre, N., Raymond, C., Retta, R., Sewery, P., Roman, J., Roy, A., Schauer, S., Schupback, R., Stenge-Thomann, N., Stojanovic, N., Talamas, J., Tesfaye, S., Theodore, J., Topham, K., Travers, M., Vossiliev, H., Viel, R., Vo, A., Wilson, B., Wu, X., Wyman, D., Young, G., Zainoun, J., Zembek, L., Zimmer, A. and Zody, M. Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     08-OCT-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus l (bases 1 to 204308)
Birren, B., Nusbaum, C. and Lander, E.
Mus musculus chromosome 3, clone RP23-381116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Submitted (15-JAN-2003) Whitehead Institute/MIT Center for Genom Submitted (15-JAN-2003) Whitehead Institute/MIT Center for Genom Research, 320 Charles Street, Cambridge, MA 02141, USA 3 (bases 1 to 204308)
Birren, B., Nusbaum, C., Lander, E., Abouelleil, A., Allen, N., Anderson, M., Anderson, S., Arachchi, H.M., Barna, N., Bastien, V., Bloom, T., Boguslavkiy, L., Boukhgalter, B., Camarata, J., Chang, J., Choepel, Y., Collymore, A., Cook, A., Cooke, P., Corum, B.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 199373;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mus musculus chromosome 3 clone RP23-381116 map IN PROGRESS ***, 3 unordered pieces.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FULLTOP; HTGS_ACTIVEFIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                               2,
organism="Rattus norvegicus"
                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 224;
                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 17; DB
Pred. No. 24;
0; Mismatches
                                                                                                                                                                    .188528)
                                                                                                                                                                                                                                               end_sequence:RXBMC45TJ"
189753. .191324
//note="wgs_end_extension
clone_end:T7"
                                                                                                                                                                                                                                                                                                                                             clone_end:T7"
              'mol_type="genomic DNA"
'db_xref="taxon:10116"
'clone="CH230-457H17"
                                                                         1. .1418
/note="wgs_contig"
14276. .15866
/note="wgs_contig"
complement (187609. .1867)
/note="clone_boundary
clone_end:T7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HTGS PHASE1; HTGS FUL musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTATTGATTCTGTAGGT 19
|||||||||||||||||
TTATTGATTCTGTAGGT 75557
                                                                                                                                                                                                                                                                                                                                     .195718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GI:53984567
                                                                                                                                                                                                                                                                                                                                                                                                                                               89.5%;
                                                                                                                                                                                                                                                                                                                                 193193. .19
/note="wgs_
                                                                                                                                                                                                                            site: MboI
                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 100,
Matches 17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ī.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AC138676
                                                                            misc_feature
                                                                                                                       misc feature
                                                                                                                                                              feature
                                                                                                                                                                                                                                                                           misc_feature
                                                                                                                                                                                                                                                                                                                                       misc feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HTG;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        75541
                                                                                                                                                               misc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JOURNAL
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AC138676
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      KEYWORDS
SOURCE
```

RESULT

g

ò

ORIGIN

TITLE

```
DeArellano, K., Diaz, J.S., Dodge, S., Dooley, K., Dorris, L., Brickson, J., Faro, S., Ferreira, P., FitzGerald, M., Gage, D., Galagan, J., Gardyna, S., Graham, L., Grand-Pierre, N., Hafez, N., Hagopian, D., Hagos, B., Hall, J., Horton, L., Fullme, W., Iliev, I., Johnson, R., Jones, C., Kamat, A., Karatas, A., Kells, C., Landers, T., Levine, R., Lindlad-Toh, K., Liu, G., Liu, X., Lui, A., Mabbitt, R., MacCarth, M., Macdonald, P., Major, J., Manning, J., Matthews, C., Macdonald, P., Major, J., Manow, T., Mlenga, V., Murph, T., Naylor, J., Mayven, C., Mayven, C., Nguyen, C., Nguyen, T., Micol, R., Norbu, C., O'Connor, T., O'Donnell, P., O'Neil, D., Oliver, J., Peterson, K., Phunkhang, P., Pierre, N., Rachupka, A., Ramasamy, U., Raymond, C., Retta, R., Kise, C., Rogov, P., Roman, J., Schauer, S., Schupback, R., Staman, S., Severy, P., Smith, C., Spencer, B., Stange-Thomann, N., Stojanovic, N., Stubbs, M., Talamas, J., Tesfaye, S., Theodore, J., Tophan, K., Travers, M., Vassiliev, H., Venkataraman, V.S., Viel, R., Vo, A., Wilson, B., Wu, X., Wyman, D., Young, G., Zainoun, J., Zembek, L., Direct Submission

L. Submitted (08-0CT-2004) Whitehead Institute/MIT Center for Genome Smit, A.F.A. & Green, P. (1996-1997)

Smit, A.F.A. & Green, P. (1996-1997)

Center: Whitehead Institute/MIT Center for Genome Center Center code: WIER Web site: http://www-seq.wi.mit.edu

Contact: sequence submissions@broad.mit.edu

Contact: sequence submissions@broad.mit.edu

Contact: sequence submissions@broad.mit.edu

Center code name: 1381_1_6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HTG 02-FEB-2004
WORKING DRAFT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          and the accession number will
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NOTE: This is a 'working draft' sequence. It currently consists of 3 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number wil.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 204308;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 945: contig of 945 bp in length
6 1045: gap of unknown length
6 62113: contig of 61068 bp in length
4 62213: gap of unknown length
4 204308: contig of 142095 bp in length
Location/Qualifiers
1. 204308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       linear
map 15,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              clone="RP23-381116"
clone_lib="RPCI-23 Female Mouse BAC"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mus musculus chromosome 15 clone RP23-36C9 SEQUENCE, 6 unordered pieces.
AC148095.1 GI:415R1467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pred. No. 24
Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /organism="Mus musculus"
/mol_type="genomic DNA"
/db_xref="taxon:10090"
/chromosome="3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       89.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   map="3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         preserved
```

3

2

. rg

```
Similarity 17; Conser
100098
                                                                                                                                                                                                                                                                                                                                                                          misc_feature
                                                                                                                                                                                                                                                                                                           misc_feature
                                                                                                                                                                             misc_feature
                                                                                                                                                                                                                                           misc_feature
                                                                                                                                                                                                                                                                            feature
                                                                                                                                                                                                                                                                                                                                             misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local S
Matches 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 38
AC134898/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LOCUS
DEFINITION
                                                                                                                                                                                                                                                                             misc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VERSION
KEYWORDS
                                 FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                             ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           da
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                       Birren, B., Nusbaum, C., Lander, E., Abouelleil, A., Allen, N., Arachchi, H.M., Barna, N., Bastien, V., Bloom, T., Anderson, M., Arachchi, H.M., Barna, N., Bastien, V., Bloom, T., Boukhgalter, B., Corum, B., DeArellano, K., Collymore, A., Cook, A., Cooke, P., Corum, B., DeArellano, K., Diaz, J.S., Dodge, S., Dooley, K., Dorris, L., Erickson, J., Faro, S., Ferreira, P., FitzGerald, M., Gage, D., Galagan, J., Gardyna, S., Graham, L., Grand-Pierre, N., Hafez, N., Hagopian, D., Hagos, B., Hall, J., Horton, L., Hulme, W., Iliev, I., Johnson, R., Jones, C., Kamat, A., Karatas, A., Kells, C., Landers, T., Levine, R., Jones, C., Lindblad-Toh, K., Liu, X., Lui, A., Mabbitt, R., MacLean, C., McCarthy, M., Macdonald, P., Major, J., Manning, J., Matthews, C., McCarthy, M., Macdonald, P., Major, J., Manning, J., Matthews, C., McCarthy, M., Major, J., Peterson, K., Phunkhang, P., Pierre, N., Nguyen, C., Oliver, J., Peterson, K., Phunkhang, P., Pierre, N., Rachupka, A., Ramasamy, U., Raymond, C., Retta, R., Rise, C., Rogov, P., Roman, J., Schauer, S., Schupback, R., Seaman, S., Severy, P., Smith, C., Spencer, B., Stange-Thomann, N., Stojanovic, N., Stubbs, M., Travers, M., Vassiliev, H., Venkataraman, V.S., Viel, R., Vo, A., Wilson, B., Wu, X., Wyman, D., Young, G., Zainoun, J., Zembek, L., Zimmer, A. and Zody, M.
                                                                                                                                                                                                                                                                                                                                                                                                                                          ers,M.,
son,B., Wu,X.,
and Zody,M.
                                                                                                                                                                                                                                                                                                                                                                          , N.,
, Rogov, P.,
,, Smith, C.
                                                                                                                                                                                            Choepel, Y.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            for Genome
                                                Vertebrata; Euteleostomi
hi; Muridae; Murinae; Mu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Research
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         and the accession number will
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NOTE: This is a 'working draft' sequence. It currently consists of 6 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    agarose-fp
sum-of-contigs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100 bp

1 of 16724 bp in length

100 bp

2 of 31888 bp in length

1 100 bp

3 of 49587 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Jof 684 LP
E 100 bp
Tof 814 bp in length
                                                Craniata; Vert
Sciurognathi;
                                                                                                               clone RP23-36C9
   HTGS FULLTOP
                                                                                               and Lander, E
HTGS_DRAFT;
                                                Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         contig
gap of
contig
gap of
contig
gap of
contig
                                                                                              Birren, B., Nusbaum, C. and La
Mus musculus chromosome 15,
Unpublished
               musculus (house mouse)
                                                                malia; Eutheria; Ro
(bases 1 to 210358)
                                                                                                                                                to 210358)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        784:
1598:
1698:
18422:
18522:
50410:
50510:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            684:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            be preserved
                                   Mus musculus
                                                                                                                                                  (bases 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          685
785
1599
1699
18423
18523
50411
                 Mus
                                   ORGANISM
                                                                                  REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JOURNAL
                                                                                                                                 JOURNAL
                                                                                                                                               REFERENCE
 KEYWORDS
SOURCE
```

COMMENT

```
ROD 10-JUL-2004
1, complete
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Louis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
1 (bases 1 to 213348)
Hodges,J., Cotton,M., Bielicki,L., Haglund,K., Meyer,R. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4444 Forest
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4444 Forest
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Parkway, St. Louis, MO 63108, USA
4 (bases 1 to 213348)
Wilson, R.K.
Direct Submission
Submitted (10-JUL-2004) Genome Sequencing Center, Washington University School of Medicine, 4444 Forest Park Parkway, St. MO 63108, USA
On Jul 10, 2004 this sequence version replaced gi:47777599.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          210358;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 linear RC chromosome 14,
8 100197: gap of 100 bp
8 210358: contig of 110161 bp in length
Location/Qualifiers
1. .210358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hodges, J., Cotton, M., Bielicki, L., Haglund, K., Mey Haakenson, W.

The sequence of Mus musculus BAC clone RP23-478H2 Unpublished (2001)

(bases 1 to 213348)

McPherson, J.D. and Waterston, R.H.

Direct Submission

Submitted (02-OCT-2002) Genome Sequencing Center,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequencing Center,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IndelB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length
                                                                                                                                                                                                       Mouse BAC"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Genome Sequencing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AC134898 213348 bp DNA Mus musculus BAC clone RP23-478H2 from sequence.
AC134898
AC134898.4 GI:50200145
HTG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2
                                                                         /organism="Mus musculus"
/mol_type="genomic DNA"
/db_xref="taxon:10090"
/chromosome="15"
/clone="RP23-36C9"
/clone lib="RPCI-23 Female Mc1. 684
/note="assembly_fragment
clone end:SP6
vector_side:left"
785. .1598
/note="assembly_fragment"
1699. .18422
/note="assembly_fragment"
1853. .50410
/note="assembly_fragment"
18523. .50410
/note="assembly_fragment"
100198. .210358
/note="assembly_fragment"
/note="assembly_fragment"
/note="assembly_fragment"
/note="assembly_fragment"
/note="assembly_fragment"
/note="assembly_fragment"
/note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 17; DB 2
Pred. No. 24;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    63108,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               _side:right"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mus musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                7203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3 (bases 1 to 213348)
Wilson, R. K.
Direct Submission
Submitted (28-MAY-2004)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              。
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Submitted (02-OCT-2002)
Parkway, St. Louis, MO
3 (bases 1 to 213348)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           89.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              clone end:T7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
```

ö

us-10-619-906-5.rge

```
repeat_region
                                          repeat_region
                                                                                                                  repeat_region
                                                                                                                                                                                                                                                                                                                                         repeat_region
                                                                               repeat_region
                                                                                                                                                        repeat_region
                                                                                                                                                                                            repeat_region
                                                                                                                                                                                                                               repeat_region
                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                          repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                  repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                           repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             repeat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       unsure
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     unsure
                                                                                                                                                                 This sequence was finished as follows unless otherwise noted:

all regions were double stranded, sequenced with an alternate
chemistry, or covered by high quality data (i.e., phred quality >=
30); an attempt was made to resolve all sequencing problems, such
as compressions and repeats; all regions were covered by sequence
from more than one subclone; and the assembly was confirmed by
restriction digest.
                                                                                                                                                                                                                                                                                                                                     MAPPING INFORMATION:
Mapping information for this clone was provided by Dr. Wes Warren,
Department of Genetics, Washington University, St. Louis MO. For
additional information about the map position of this sequence, se
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ey and/or
can be
en.com) or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Osegawa
   Cent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Kazutoyo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The RPCI-23 BAC Library has been constructed by Kazutoyo and Minako Tateno in the laboratory of Pieter de Jong (http://www.chori.org) from female C57BL/6J mouse kidney brain genomic DNA. The clone and detailed information cobtained from Research Genetics, Inc. (http://www.resgen Pieter de Jong and coworkers at http://www.chori.org
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              of pro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3105. .3203.
/rpt_family="B2"
3287. .3469
/rpt_family="B2"
4210. .4341
/rpt_family="MaLR"
4410. .4557
/rpt_family="Alu"
4622. .4626
/note="Sequence derived from PCR product of 5208. .5479
/rpt_family="B4"
 Sequencing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              clone
                                                        .edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             the
Center: Washington University Genome
              Center code: WūGSC
Web site: http://genome.wustl.edu
Contact: submissions@watson.wustl.
------ Summary Statistics
Center project name: M_BA0478H02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NEIGHBORING SEQUENCE INFORMATION:
This sequence is the entire insert
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               organism="Mus musculus"
mol_type="genomic DNA"
'db_xref="taxon:10090"
'chromosome="14"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /clone="RP23-478H2"
/clone="RP23-478H2"
825. .937
/rpt_family="Alu"
961. .1133
/rpt_family="B4"
1002. .1139
/rpt_family="B4"
1362. .1499
/rpt_family="MaLR"
1568. .1669
/rpt_family="B2"
1744. .1882
/rpt_family="B2"
1744. .1882
/rpt_family="Alu"
2738. .2868
/rpt_family="Alu"
2738. .2868
/rpt_family="Alu"
2875. .3015
/rpt_family="Alu"
2875. .3015
                                                                                                                                                                                                                                                                                                                                                                                                                  http://genome.wustl.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .213348
                                                                                                                                                                                                                                                                                                                                                                                                                                                       INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            map="14"
                                                                                                                                                  NOTICE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            repeat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          repeat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURES
```

```
repeat_region 5936 ..6047
repeat_region 6702 ...0172="All"
repeat_region 7025 ...0172="All"
repeat_region 7025 ...0172="All"
repeat_region 7125 ...0125="All"
repeat_region 7125 ...0125
repe
```

.rge

Ŋ ı

```
be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   as soon as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        219194
219294
220404
220504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Worley, K.C
                                                                                                                                                                                                                                                                                                                                                 REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                           JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JOURNAL
                                                                                                                                                                                                                                                                                                                               JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                    TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     B (bases 1 to 221618)

Muzny, D.M., Adams, C., Adio-Oducla, B., Ali-osman, F.R., Allen, C., Alsbrooks, S.L., Amaratunge, H.C., Are, J.R., Ayele, M., Banks, T., Babbrooks, S.L., Amaratunge, H.C., Are, J.R., Ayele, M., Banks, T., Babbraia, J., Benton, J., Bimage, K., Blankenburg, K., Bonnin, D., Bouck, J., Bowe, S., Brieva, M., Brown, B., Brown, M., Bryant, N.P., Bunket, C., Burrell, K.L., Byrd, N.C., Carter, M., Cavazos, S.R., Chacko, J., Chavez, D., Chen, G., Chen, R., Chen, Z., Chowdhry, I., Christopoulos, C., Chen, G., Cox, C., Coyle, M.D., Dathorne, S.R., David, R., Daylado, O., Denn, J.L., Ding, Y., Dath, H.H., Deuthwaite, K.R., Dalgado, O., Denn, J.L., Ding, Y., Durbin, K.J., Barnhart, C., Edgar, D., Edwards, C.C., Elhaj, C., Escotto, M., Farls, T., Ferraguto, D., Flagg, M., Ford, J., Foster, P., Frantz, P., Frantz, P., Harls, Gao, J., Garcia, A., Garcia, M., Ganzane, P., Hale, S., Hamilton, K., Harris, C., Harris, C., Harris, K., Harris, K., Harris, C., Harris, C., Harris, K., Harris, C., Harris, C., Harris, C., Harris, C., Harris, C., Harris, C., Ludgson, R., Hogues, M., Holloway, C., Hollins, B., Jacobson, B., Jia, Y., Johnson, R., Johnson, R., Joudah, S., Kovar, C., Karlsson, E., Kelly, S., Khan, U., King, L., Korrah, J., Kovar, C., Liu, J., Li, Z., Lichtarge, O., Liu, J., Liu, W., Loulesegel, M., Lieu, C., Lud, M., Medse, M., Mapus, P., Martin, R., Martindale, A., Martinez, B., Mansey, E., Mawhiney, E., Markin, R., Martindale, M., Morris, S., Miner, G., Muller, Z., Mitchell, T., Mohabbat, K., Morgan, M., Moyue, N., Nguyen, S., Oguh, M., Okwuonu, G., Okyuonu, G., O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Metzker, M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            13-NOV-2002
E, 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HTG; HTGS_PHASE1; HTGS_DRAFT; HTGS_FULLTOP.
Rattus norvegicus
Rattus norvegicus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DNA linear HTG WORKING DRAFT SEQUENC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 213348;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indele
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pred. No. 24 : Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Rattus norvegicus clone CH230-2G8, unordered pieces.
                                                                                                                                                                                                                                                                                                                                                      /rpt_family="B4"
14884. .14940
/rpt_family="L1"
14956. .15019
/rpt_family="B2"
14998. .15927
/rpt_family="RMER1B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 17
/rpt_family="L1"
13753. .13802
/rpt_family="MaLR"
13784. .13953
/rpt_family="B2"
13953. .14041
/rpt_family="B2"
14034. .14376
/rpt_family="MaLR"
14743. .14855
/rpt_family="Alu"
14771. .14871
/rpt_family="MaLR"
14856. .14883
/rpt_family="MaLR"
14856. .14883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GI:24941356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          89.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AATTATTGATTCTGTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AC098411.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Rattus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  repeat_region
                                                                                        repeat_region
                                                                                                                                      repeat_region
                                                                                                                                                                                     repeat_region
                                                                                                                                                                                                                                  region
                                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                                                     repeat_region
                                                                                                                                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                    repeat_region
                                          repeat_region
                                                                                                                                                                                                                                    repeat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AC098411/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT
```

d

ò

```
Oragunye, N., Oviedo, R., Pace, A., Payton, B., Peery, J., Perez, L., Peters, L., Pickens, R., Primus, E., Pu, L.L., Quiles, M., Ren, Y., Rives, M., Rojas, A., Rojubokan, I., Rolfe, M., Ruiz, S., Savery, G., Scherer, S., Scott, G., Shen, H., Shooshtari, N., Sisson, I., Sodergren, E., Sonaike, T., Sparks, A., Stanley, H., Stone, H., Sutton, A., Svatek, A., Tabor, P., Tamerisa, A., Tamerisa, K., Tang, H., Tansey, J., Taylor, C., Taylor, T., Telfrod, B., Thomas, N., Thomas, S., Usmani, K., Vasquez, L., Vera, V., Villalon, D., Vinson, R., Wang, Q., Wang, S., Ward-Moore, S., Warren, R., Washington, C., Watlington, S., Williams, G., Williamson, A., Wleczyk, R., Wooden, S., Worley, K., Weinstock, G. and Gibbs, R.

Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NOTE: Estimated insert size may differ from sequence length (see http://www.hgsc.bcm.tmc.edu/docs/Genbank_draft_data.html)
NOTE: This is a 'working draft' sequence. It currently consists of 4 contigs. The true order of the pieces is not known and their order in this sequence record is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Department
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          One
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8x in Q20 bases; sum-of-contigs estimation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Center, Depar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      estimation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 172380: contig of 172380 bp in length 172480: gap of unknown length 219193: contig of 46713 bp in length 3194 219293: gap of unknown length 3294 220403: contig of 1110 bp in length 364 220503: gap of unknown length 3504 221618: contig of 1115 bp in length Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sum-of-contigs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Center project name: TURA
Center project name: TURA
Center clone name: CH230-2G8
------ Summary Statistics
Assembly program: Phrap; version 0.990329
Consensus quality: 209367 bases at least Q40
Consensus quality: 210730 bases at least Q30
Consensus quality: 211730 bases at least Q20
Estimated insert size: 215293; sum-of-contigs
                                                                                                                                                                                                                                                                                                                                                                                                                              Worley, K.C.
Worley, K.C.
Direct Submission
Submitted (23-OCT-2001) Human Genome Sequencing
of Molecular and Human Genetics, Baylor College
of Molecular And Human Genetics, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Center: Baylor College of Medicine
Center code: BCM
Web site: http://www.hgsc.bcm.tmc.edu/
Contact: hgsc-help@bcm.tmc.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       - Genome Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Baylor Plaza, Houston, (bases 1 to 221618)
                                                                                                                                                                                                                                                                                                                                                                                                                 (bases 1 to 221618)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Quality coverage:
```

```
50373
50473
55829
55929
114633
116755
163757
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local (
Matches 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 41
AC125675/c
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCESSION
VERSION
                                                                                                                                         JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURES
                                                                                                                                                                                      COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     පු
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Unbearen 1 to 235315)

Birren, B. Inthron, L. Nubbaum, C., Lander, E., Ali, A., Allen, N., Anderson, S., Barna, N., Bastlen, V., Boguslavkiy, L., Boukhgalter, B., Anderson, S., Barna, N., Calmagolano, A., Chang, J., Chazaro, B., Cooke, P., Colangelo, M., Colling, S., Collymore, A., Cook, A., Cooke, P., DeArellano, K., Dewar, K., Diaz, J. S., Dodge, S., Faro, S., Fritzhugh, W. Gage, D., Galagan, J., Gardyna, S., Gord, S., Goyette, M., Chine, W., Line, M., Liu, G., Macchean, C., Macchean, C., Macchean, C., Macdonald, P., Morton, L., Hulme, W., Litev, I., Johnson, R., Johnson, P., Macchean, C., Macdonald, P., Morton, C., Marthews, C., Macchean, C., Macdonald, P., Moren, W., Marthews, C., Macchen, C., Macchen, M., Macken, M., Marthews, C., Macchen, C., Macchen, M., Macken, M., Marthews, C., Norman, C.H., O'Connor, T., O'Donnal, P., O'Nail, D., Strauss, N., Subramanian, A., Talamas, J., Tesfaye, S., Theodore, J., Strauss, N., Subramanian, M., Taravers, M., Mison, B., Wu, X., Wham, J., Yonna, S., Severy, P., Spencer, B., Strange-Thomann, N., Stojanovic, N., O'London, Y., Schauss, M., Wilson, B., Wu, X., Wham, J., Yonna, J., Camber, L., Zimmer, A. and Zody, M.

Birren, B., Nusbaum, C., Lander, E., Abouellei, A., Allen, N., Anderson, M., Arachchi, H.M., Barna, N., Pastellano, Y., Bonguslarkiy, L., Boukhgaller, B., Camartae, J., Charler, B., Barten, B., Marthews, C., Macchan, C., Macchen, J., Manning, J., Matthews, C., Macchen, J., Manning, J., Manning, J., Matthews, C., Macchen, J., Manning, J., Manning, J., Manning, J., Manning, J., Manning, J., Manning, J., Patter, D., Patter, J., Patterson, W., Patterson, W., Willon, Y., Patterson, W., Milon, Y., Patterson, W., 
                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Rise, C., Rogov, P.,
hauer, S., Schupback, R.,
omann, N., Stojanovic, N.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Euteleostomi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             inae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eute
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Mur:
1 (bases 1 to 235315)
Birren, B., Nusbaum, C. and Lander, E.
Mus musculus chromosome 12, clone RP23-259L1
Unpublished
                                                                                                                                                                                   0
                                                                                                                                       Length 221618;
                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                         linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HTG; HTGS_PHASE1; HTGS_FULLTOP; HTGS_ACTIVEFIN Mus musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                    235315 bp DNA : Dmosome 12 clone RP23-259L1 6 unordered pieces.
                                                                                                                                                                                  ;
0
                                                                                                                                     2;
/organism="Rattus norvegicus"
/mol_type="genomic DNA"
/db_xref="taxon:10116"
                                                                                                                                  Score 17; DB 2
Pred. No. 23;
0; Mismatches
                                                                  /clone="CH230-2G8"
                                                                                                                                                                                                                          2.
IN PROGRESS ***, 6 unorr
                                                                                                                                                                               .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GI:45642876
                                                                                                                                    89.5%;
100.0%;
                                                                                                                                                       Similarity 100
17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AC103654
                                                                                                                                                                                                                                                                                                                                                                                    AC103654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mus
                                                                                                                                Query Match
Best Local
Matches 1
                                                                                                                                    Match
                                                                                                                                                                                                                                                                                                                                                                                                        DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     JOURNAL
                                                                                                                                                                                                                                                                                                                                                            AC103654
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KEYWORDS
```

TITLE

VERSION

SOURCE

RESULT

g

ò

ORIGIN

```
;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HTG 19-NOV-2002
SEQUENCE, 7
      Rogov, P., Smith, C.
                                                                                                      Genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HTG; HTGS_PHASE1; HTGS_DRAFT; HTGS_FULLTOP.
Rattus norvegicus
Rattus norvegicus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Murinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                          NOTE: This is a 'working draft' sequence. It currently consists of 6 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 235315;
                                                                                                                                                                                                A linear WORKING DRAFT
                                                                                                                                                                                                                                                                                                                                                                                                                      g of 50372 bp in length f 100 bp g of 5356 bp in length g of 58704 bp in length f 100 bp g of 2022 bp in length f 100 bp g of 46902 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Female Mouse BAC"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    in
u
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Rattus norvegicus clone CH230-237017, vunordered pieces.
AC125675
AC125675.4 GI:25072002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 17; DB
Pred. No. 23;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /organism="Mus musculus"
/mol_type="genomic DNA"
/db_xref="taxon:10090"
/chromosome="12"
                                                                                                                                                                                                                                                                                                                                                                                                                     1 50372: contig o

373 50472: gap of 1

55828: contig o

829 55928: gap of 1

929 114632: contig o

633 114732: gap of 1

733 116754: contig of

755 116854: gap of 1

757 163856: gap of 1

157 235315: contig of

Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               clone="RP23-259L1"
clone lib="RPCI-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        65677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           89.5%; SU
100.0%; Pi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     65661 TTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               l Similarity
17; Conserv
```

· rge

```
TTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         misc feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      misc feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         m
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURES
Exactus.

Exactus.

Rattus.

Rattus.

Nuzzy, D.Marie., Merzker, M.Lee., Abramzon, S., Adams, C., Alder, J.,

Allan, C., Allan, H., Albrocks, S., Amin, A., Anguiano, D.,

Allan, T., Allan, T., Blankenburg, M., Barcastead, M., Benahmed, F.,

Baldwin, D., Blank, D., Barber, M., Barcastead, M., Benahmed, F.,

Baldwin, D., Blank, D., Blarber, M., Barcastead, M., Benahmed, F.,

Bryant, N., Buhy, C., Blurch, P., Burrell, K., Chan, Y., Chen, Z.,

Chacko, J., Charce, E., Cavaco, I., Cesara, H., Center, A.,

Draper, H., Dugar, B.C., Burch, P., Burrell, K., Chan, Y., Chen, Z.,

Chacko, J., Charce, S., Dany-Carroll, R., Cox, C., Coyle, M., Cree, A., Dr Soura, L.,

Davila, H., Dugar, B.C., Baren, C., Burch, R., Chan, Y., Chan, Y.,

Ernandez, S., Fhiley, M., Plags, N., Pother, M., Jackeon, A., Jackeon, A., Jackeon, A., Jackeon, M., Hand, C., Handli, S., Huk, S., 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Submitted (19-NOV-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA On Nov 19, 2002 this sequence version replaced gi:23676845. The sequence in this assembly is a combination of BAC based reads and whole genome shotgun sequencing reads assembled using Atlas (http://www.hgsc.bcm.tmc.edu/projects/rat/). Each contig described in the feature table below represents a scaffold in the Atlas assembly (a 'contig-scaffold'). Within each contig-scaffold, individual sequence contigs are ordered and oriented, and separated by sized gaps filled with Ns to the estimated size. The sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Department
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Center,
of Medic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Submitted (29-JUN-2002) Human Genome Sequencing of Molecular and Human Genetics, Baylor College Baylor Plaza, Houston, TX 77030, USA 3 (bases 1 to 241151)
Rat Genome Sequencing Consortium.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (bases 1 to 241151)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Worley, K.C.
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Direct Submi
Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
AUTHORS
                          REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JOURNAL
```

TITLE

COMMENT

```
Center: Baylor College of Medicine
Center code: BCM
Web site: http://www.hgsc.bcm.tmc.edu/
Contact: hgsc-help@bcm.tmc.edu
Contact: hgsc-help@bcm.tmc.edu
Contact: name: GTPS
Center project name: GTPS
Center clone name: CH230-237017
Center clone name: CH230-237017
Center clone name: CH230-237017
Center clone name: CH230-237017
Consensus quality: 229311 bases at least Q40
Consensus quality: 232099 bases at least Q20
Consensus quality: 228904; sum-of-contigs estimation
Quality coverage: 8x in Q20 bases; sum-of-contigs estimation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
may extend beyond the ends of the clone and there may be sequence contigs within a contig-scaffold that consist entirely of whole genome shotgun sequence reads. Both end sequences and whole genome shotgun sequence only contigs will be indicated in the feature table.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          data.html)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GapB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NOTE: Estimated insert size may differ from sequence length (see http://www.hgsc.bcm.tmc.edu/docs/Genbank_draft_data.]
NOTE: This is a 'working draft' sequence. It currently consists of 7 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 241151;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 3625: contig of 3625 bp in length
3725: gap of unknown length
3726 234785: contig of 231060 bp in length
4786 234885: gap of unknown length
4886 236114: contig of 1229 bp in length
5115 236214: gap of unknown length
5215 237456: contig of 1242 bp in length
5215 237556: gap of unknown length
557 238736: contig of 1180 bp in length
557 238836: gap of unknown length
5837 239890: contig of 1054 bp in length
5891 239990: gap of unknown length
5891 239990: gap of inknown length
5891 241151: contig of 1161 bp in length
5891 241151:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /organism="Rattus norvegicus"
/mol_type="genomic DNA"
/db_xref="taxon:10116"
/clone="CH230-237017"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ore 17; DB 2 red. No. 23; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   end_extension
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     end_extension
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 17;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .6122)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             clone_end:T7" _
complement(5255..6122)
/note="clone_boundary
clone_end:T7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sequence: BZ103403"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         end_sequence:BZ103407"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         boundary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             227618. .228487
/note="clone_bo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ...1578
/note="wgs_end
clone_end:T7"
3726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                _end:Sp6_
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3726. . . 4740
/note="wgs_en
clone_end:<u>T</u>7"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity 17; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3626
3726
234786
234886
236115
236215
237457
237557
237557
238837
239891
239891
```

d

One

and Human

```
source
                                                                REFERENCE
AUTHORS
TITLE
                                                                                                                                                         JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURES
                                                                                                                                                                                                                                             COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Rettue:

Rattue:

Rattue:

Rattue:

Rangry, Davaie., Metzer, M.Lee., Abramzon, S., Adams, C., Alder, J., Allan, C., Allan, H., Alsbrooks, S., Amin, A., Anguiano, D., Allan, C., Allan, H., Alsbrooks, S., Amin, A., Anguiano, D., Allan, C., Allan, H., Alsbrooks, S., Amin, A., Anguiano, D., Allan, C., Allan, H., Alsbrooks, S., Amin, A., Anguiano, D., Anguiano, D., Bander, M., Bander, E., Barder, M., Bander, C., Carder, M., Barangranaike, D., Barber, M., Barcare, E., Erom, M., Bandy, C., Barder, M., Barder, M., Carder, M., Cher, C., Coyle, M., Cree, A., D., Chavez, D., Chen, G., Coyle, M., Cree, A., D., Chavez, D., Chen, G., Coyle, M., Cree, A., D., Souza, L., Corterer, M., Carders, D., Davy-Garder, S., Davy-Garder, C., Davy-Garder, C., Davy-Garder, C., Davy-Garder, S., Davy-Garder, S., Davy-Garder, C., Davy-Garder, C., Davy-Garder, C., Davy-Garder, C., Davy-Garder, C., Davy-Garder, C., Davy-Garder, S., Davy-Garder, C., Garder, M., Bagan, A., Ernie, S., Finley, M., Flagg, N., Forber, L., Forster, M., Guevara, M., Guevara, M., Harray, T., Havis, M., Hanillon, C., Hamilton, C., Mangum, A., Hollins, B., Howells, S., Hilden, S., Hand, S., Hander, M., Malloy, K., Mary, M., Mangum, B., Mapua, P., Martin, K., Martin, K., Martin, K., Martin, S., Wartin, S., Wartin, S., Wartin, S., Wartin, C., Ratter, M., Mapua, P., Martin, E., Maryer, M., Maryer, R., Maryer, M., Maryer, M., Wartin, K., Wartin, K., Wartin, S., Warter, M., Wartin, K., Wartin, 
                                                                                                                                                              09-MAY-2003
3E, 4
                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
                                                                                                                                                                              AC122943
Rattus norvegicus clone CH230-3N3, WORKING DRAFT SEQUENC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Worley, K.C.
Worley, K.C.
Direct Submission
Submitted (26-MAY-2002) Human Genome Sequencing Center,
                                                                                                                                                                                                                                                                                                                    HTG; HTGS_PHASE1; HTGS_DRAFT; HTGS_FULLTOP
Rattus norvegicus (Norway rat)
42391 TTATTGATTCTGTAGGT 42375
                                                                                                                                                                                                                                                                                                GI:30467080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (bases 1 to 256265)
                                                                                                                                                                                                                            unordered pieces.
AC122943
AC122943.5 GI:304
                                                                                                                                                                                                                                                                                                                                                                                 Rattus norvegicus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Weinstock,G. and (
Direct Submission
                                                                                                                                                                                                       DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM
                                                                                                                                                                                                                                                            ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          JOURNAL
REFERENCE
AUTHORS
                                                                                                                   RESULT 42
AC122943
```

Department

TITLE

```
Submitted (09-MAY-2003) Human Genome Sequencing Center, Department Submitted (09-MAY-2003) Human Genetics, Baylor College of Medicine, One of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA.

On May 9, 2003 this sequence version replaced gi:22772509.

The sequence in this assembly is a combination of BAC based reads and whole genome shotgun sequencing reads assembled using Atlas (http://www.hgsc.bcm.tmc.edu/projects/rat/). Each contig described in the feature table below represents a scaffold in the Atlas assembly (a 'contig-scaffold'). Within each contig-scaffold, individual sequence contigs are ordered and oriented, and separated by sized gaps filled with Ns to the estimated size. The sequence may extend beyond the ends of the clone and there may be sequence contigs within a contig-scaffold that consist entirely of whole genome shotgun sequence reads. Both end sequences and whole genome shotgun sequence only contigs will be indicated in the feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NOTE: Estimated insert size may differ from sequence length (see http://www.hgsc.bcm.tmc.edu/docs/Genbank_draft_data.html)
NOTE: This is a 'working draft' sequence. It currently consists of 4 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sum-of-contigs estimation
Medicine,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             estimation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 196493: contig of 196493 bp in length
494 196593: gap of unknown length
594 253760: contig of 57167 bp in length
761 253860: gap of unknown length
861 255090: contig of 1230 bp in length
091 255190: gap of unknown length
191 256265: contig of 1075 bp in length.
Location/Qualifiers
 College of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Assembly program: Atlas;
Consensus quality: 230047 bases at least Q40
Consensus quality: 232686 bases at least Q30
Consensus quality: 234367 bases at least Q20
Estimated insert size: 240988; sum-of-contigs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Center: Baylor College of Medicine
Center code: BCM
Web site: http://www.hgsc.bcm.tmc.edu/
Contact: hgsc-help@bcm.tmc.edu
------ Project Information
Center project name: GAOA
Genetics, Baylor
TX 77030, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8x in Q20 bases;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /mol_type="genomic DNA"
/db_xref="taxon:10116"
/clone="CH230-3N3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    one name: CH230-3N3
Summary Statistics
orogram: Atlas;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1. .1416
/note="wgs_end_extension
                Baylor Plaza, Houston, TX 77030, 3 (bases 1 to 256265)
Rat Genome Sequencing Consortium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         clone_end:T7"
complement(2614. .3386)
/note="clone_boundary
clone_end:T7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sequence: BH313649"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 clone_end:Sp6
site:EcoRI
end_sequence:BH313651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9305. .9839
/note="clone_boundary
clone_end:Sp6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ------ Project
Center project name
Center clone name:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Quality coverage:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      clone end:
site: EcoRI
                                                                                                                Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         196494
196594
253761
255861
255091
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           misc feature
```

· rge

DEFINITION

ACCESSION

VERSION KEYWORDS

RESULT 43 AC110676

d

ð

Matches

Query Best

ORIGIN

ORGANISM

SOURCE

AUTHORS

REFERENCE

S

```
misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        source
                                                                                                                                                                                                                                                                                            REFERENCE
AUTHORS
TITLE
                                                                                                                                              REFERENCE
AUTHORS
                                                                                                                          JOURNAL
                                                                                                                                                                                                                       JOURNAL
                                                                                                                                                                                                                                                                                                                                                                   JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                            COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 (Gases I Co 273331)

1 (Gases I Co 273331)

2 (Gases I Co 273331)

2 (Gases I Co 273331)

3 (Gases I Co 273331)

3 (Gases I Co 27331)

4 (Gases I Co 27331)

5 (Gases I Co 27331)

5 (Gases I Co 27331)

5 (Gases I Co 27331)

6 (Gases I Co 273
                                                                                                                                                                                                                                                                                                                                                                                           08-OCT-2002
PROGRESS
                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Jackson, A.,
Jolivet, A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Euteleostomi;
                                                                                                                                                                            Gapв
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Murinae;
                                                                                                                                                                                                                                                                                                                                                                                             linear HTG
SEQUENCING IN
                                                                                                                                                                          ö
                                                                                                                            Length 256265;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Vertebrata; E
chi; Muridae;
                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Craniata; Vert
Sciurognathi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HTGS_ENRICHED
                                                                                                                                                                                                                                                                                                                                                                                                                     ***
                                                                                                                                                                         ;
                                                                                                                          DB 2;
23;
                                                                                                                                                                                                                                                                                                                                                                                                DNA
                                                                                                                                                                                                                                                                                                                                                                                               273331 bp DNi
clone CH230-213N13,
                                                                                                                       Score 17; DB Pred. No. 23; 0; Mismatches
196594. .198250
/note="wgg_end_extension
clone_end:Sp6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AC110676.4 GI:23195453
HTG; HTGS_PHASE1; HTGS_DRAFT;
Rattus norvegicus (Norway rat)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Rattus norvegicus
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                        253269
                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  unordered pieces
                                                                                                                                                                                                                           3 TTATTGATTCTGTAGGT 19
                                                                                                                         89.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (bases 1 to 273331)
                                                                                                                                                                                                                                                 Rattus norvegicus
                                                                                                                                                  Local Similarity 100 nes 17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AC110676
                                                                                                                                                                                                                                                                                                                                                                                                   AC110676
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Rattus.
         misc feature
                                                                                                                                                                                                                                                                          253253
                                                                                                                                Match
```

```
Satisfied (08-OCT-2002) Human Genome Sequencing Center, Department Direct Submission

Submitted (08-OCT-2002) Human Genetics, Baylor College of Medicine, One Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA

On Sep 19, 2002 this sequence version replaced gi:21744172.

The sequence in this assembly is a combination of BAC based reads and whole genome shotgun sequencing reads assembled using Atlas and whole genome shotgun sequencing reads assembled using Atlas in the feature table below represents a scaffold in the Atlas assembly (a 'contig-scaffold'). Within each contig-scaffold, individual sequence contigs are ordered and oriented, and separated by sized gaps filled with Ns to the estimated size. The sequence may extend beyond the ends of the clone and there may be sequence contigs within a contig-scaffold that consist entirely of whole genome shotgun sequence reads. Both end sequences and whole genome shotgun sequence only contigs will be indicated in the feature table.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NOTE: Estimated insert size may differ from sequence length (see http://www.hgsc.bcm.tmc.edu/docs/Genbank_draft_data.html)
NOTE: This is a 'working draft' sequence. It currently consists of 3 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
                                                                                                                                                                                                                                                                                                              Human Genome Sequencing Center, Department
Genetics, Baylor College of Medicine, One
TX 77030, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Center project name: GQET
Center clone name: CH230-213N13
Center clone name: CH230-213N13
Assembly program: Phrap; version 0.990329
Consensus quality: 217639 bases at least Q40
Consensus quality: 220610 bases at least Q30
Consensus quality: 222513 bases at least Q20
Estimated insert size: 245420; sum-of-contigs estimation
Quality coverage: 3x in Q20 bases; sum-of-contigs estimation
 Yen, J., Yoon, L., Yoon, V.,
Wright,D., Wright,R., Wu,J., Yakub,S., Yen,J., Yoon,L., Yoon,V
Yu,F., Zhang,J., Zhou,J., Zhou,X., Zhao,S., Dunn,D., von
Niederhausern,A., Weiss,R., Smith,D.R., Holt,R.A., Smith,H.O.,
Weinstock,G. and Gibbs,R.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 11652: contig of 11652 bp in length
3 11752: gap of unknown length
3 257149: contig of 245397 bp in length
0 257249: gap of unknown length
0 273331: contig of 16082 bp in length.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Center: Baylor College of Medicine
Center code: BCM
Web site: http://www.hgsc.bcm.tmc.edu/
Contact: hgsc-help@bcm.tmc.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    organism="Rattus norvegicus"
'mol_type="genomic DNA"
'db_xref="taxon:10116"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           clone="CH230-213N13"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1. .1233
/note="wgs_contig"
7419. .8672
/note="wgs_contig"
8723. .11652
                                                                                                                                                                                                                                     Worley, K.C.
Direct Submission
Submitted (15-FEB-2002) F
of Molecular and Human Ge
Baylor Plaza, Houston, TX
3 (bases 1 to 273331)
                                                                                                                                                                                                             (bases 1 to 273331)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1. .273331
                                                                                                    Weinstock,G. and C
Direct Submission
Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               11653
11753
257150
257250
```

ORIGIN

q

ò

```
REFERENCE
AUTHORS
TITLE
                                                                                                                            JOURNAL
REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                          JOURNAL
                                                                                                                                                                                                                                                                                                                                                                    JOURNAL
                                                                                                   TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                           COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ratchs.

15 (bases 1 to 292913)

18 Murny, D. Marie, Mezker, M.Lee., Abramzon, S., Adams, C., Alder, J.,
Allen, C., Allen, H., Alebrooks, S., Amin, A., Anquiano, D.,
Anyalabechi, W. Aoyagi, A., Ayodej, M., Barnstead, M., Benahmed, F.,
Baldwin, D., Bandaranaike, D., Barber, M., Barnstead, M., Eenhend, F.,
Baldwin, D., Bandaranaike, D., Barber, M., Barnstead, M., Eenhend, F.,
Barder, W., Carter, K., Cavacos, H., Ceasar, H., Center, J.,
Chacko, J., Charez, D., Chen, G., Chon, Y., Catheron, E.,
Chacko, J., Charez, D., Chen, G., Chon, Y., Catheron, E.,
Chacko, J., Charez, Davy-Carroll, L., De Anda, C., Dedarich, D.,
Dajdo, O., Denson, S., Deramo, C., Coyle, M., Cree, A., D'Souza, L.,
Davila, M.L., Davis, C., Dayy-Carroll, L., De Anda, C., Dedarich, D.,
Dajdo, O., Denson, S., Deramo, C., Coyle, M., Cree, A., Poloris, E.,
Brandez, S., Finley, M., Flagues, C., Falls, T., Fand, G.,
Fraser, C.M., Gablai, A., Ganta, R., Garcia, A., Garra, M.,
Gubresporgis, E., Gener, K., Gill, R., Garcia, M., Gerra, W.,
Gubresporgis, E., Gener, K., Gill, R., Garcia, M., Hamilton, K.,
Harvey, Y., Havlak, P., Hawes, A., Henderson, N., Hernandez, R., Hanels, S., Hluyk, S., Hume, J., Hodson, M., Hognes, M.,
Harvey, Y., Havlak, P., Hawes, A., Handerson, N., Hernandez, C., Kelly, S., Kelly, S., Mane, J., Mohnson, B., Johnson, R., Markin, M., Liu, Y., London, P., London, P., London, P., Markin, M., Mally, M., Liu, Y., London, P., London, B., Markin, M., Mally, S., Murch, J., Markin, K., Markin, K., Markin, K., Markin, K., Markin, K., Markin, M., Mandar, M., Markin, M., Markin,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Fan,G.,
M., Foster,P.,
                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                           -SEP-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Jackson, A.,
Jolivet, A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                          26-SEP-20
PROGRESS
                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleost
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
                                                                                                                                                                      ;
0
                                                                                                                                                                                                                                                                                                                                                                                      . linear HTG
*** SEQUENCING IN
                                                                                                                          Length 273331;
                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                               AC106456
AC106456
AC106456
AC106456.3 GI:23321494
HTG; HTGS_PHASE1; HTGS_DRAFT; HTGS_ENRICHED
Rattus norvegicus (Norway rat)
Rattus norvegicus
                                                                                                                                                                     .;
0
                                                                                                                                                                                                                                                                                                                                                                           Rattus norvegicus clone CH230-155P20, ***, 30 unordered pieces.
                                                                                                                       DB ;
                                                                                                                                                                      Mismatches
                                                                                                                      Score 17;
Pred. No.
/note="wgs_contig"
11753. .14426
/note="wgs_contig"
                                                                                                                                                                                                                                                                   211073
                                                                                                                                                                     .
0
                                                                                                                      89.5%;
100.0%;
                                                                                                                                                                                                                  TTATTGATTCTGTAGGT
                                                                                                                                                                                                                                          Conservative
                                                                                                                                          Similarity
17; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Rattus
                           misc_feature
                                                                                                                      Match
                                                                                                                                                                                                                                                                211057
                                                                                                                       Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                            DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM
                                                                                                                                                                                                                                                                                                                                      RESULT 44
AC106456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
AUTHORS
                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VERSION
· KEYWORDS
SOURCE
```

```
Baylor Plaza, Houston, TX 77030, USA

Baylor Plaza, Houston, TX 77030, USA

Sat Genome Sequencing Consortium.

Direct Submission

Submitted (26-SEP-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA

On Sep 26, 2002 this sequence version replaced gi:21735231.

The sequence in this assembly is a combination of BAC based reads and whole genome shotgun sequening reads assembled using Atlas (http://www.hgsc.bcm.tmc.edu/projects/rat/). As a result, the sequence may extend beyond the ends of the clone and there may be contigs that consist entirely of whole genome shotgun sequence reads. Both end sequences and whole genome shotgun sequence only contigs will be indicated in the feature table.

Center: Baylor College of Medicine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Center code: BCM.
Web site: http://www.hgsc.bcm.tmc.edu/
Contact: hgsc-help@bcm.tmc.edu

Contact: hgsc-help@bcm.tmc.edu

Contact: hgsc-help@bcm.tmc.edu

Contact: hgsc-help@bcm.tmc.edu

Conter project Information

Center project name: GKYF

Center clone name: CH230-155P20

Center clone name: CH230-155P20

Center clone name: CH230-155P20

Consensus quality: 234332 bases at least Q40

Consensus quality: 242106 bases at least Q30

Consensus quality: 247333 bases at least Q20

Consensus quality: 247333 bases at least Q20

Consensus quality: 247333 bases is um-of-contigs estimation

Quality coverage: 3x in Q20 bases; sum-of-contigs estimation
                                                                                                                                                                                                                                     Center, Department of Medicine, One
                                                                                                                                                                                                                                                                                                                                                                          Center, Department of Medicine, One
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NOTE: Estimated insert size may differ from sequence length (see http://www.hgsc.bcm.tmc.edu/docs/Genbank_draft_data.html)
NOTE: This sequence may represent more than one clone.
NOTE: This is a 'working draft' sequence. It currently consists of 30 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will
                            Yoon, V.,
Wright, D., Wright, R., Wu, J., Yakub, S., Yen, J., Yoon, L., Yoon, V Yu, F., Zhang, J., Zhou, J., Zhou, X., Zhao, S., Dunn, D., von Niederhausern, A., Weiss, R., Smith, D.R., Holt, R.A., Smith, H.O., Weinstock, G. and Gibbs, R.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   d of 2901 bp in length of 3490 bp in length of 3490 bp in length of 66569 bp in length of 5122 bp in length of 5122 bp in length of 5122 bp in length of 98268 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   of 98268 bp in length unknown length of 20836 bp in length of 20836 bp in length of 43131 bp in length of 3544 bp in length of 3326 bp in length of 3326 bp in length of 4120 bp in length of 4120 bp in length
                                                                                                                                                           Worley, K.C.

Direct Submission
Submitted (12-JAN-2002) Human Genome Sequencing of Molecular and Human Genetics, Baylor College Baylor Plaza, Houston, TX 77030, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       contig
gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         contig
gap of
contig
gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3001:
6491:
6591:
73160:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        78382:
78482:
176750:
176850:
197686:
197786:
240917:
244561:
244561:
244661:
248087:
252207:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2901:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2902
3002
6492
6492
73161
73261
73261
73261
78483
176851
197687
197787
240918
244562
244562
244562
```

```
292913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     length
bo in length.
                                                                                                                                                                                         length
bp in length
bp in length
length
bp in length
bp in length
bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                    length
                                                                                                                                                                                                                                                                                                                                                                                                                                                 length
                                                                                                                    length
                                                                                                                                                                             length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length
                                                                                                                                                                                                                                                                                                                                                                                                              bp in length
                                                                                                                                                                                                                                                                                                                                                                                                       length
op in l
                                                                                                                                                                                                                                                                                                                                                                                                                                                               length
bp in l
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             length
op in l
                                         length
bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Jt.
bp.
lengt.
in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism="Rattus norvegicus"
/mol_type="genomic DNA"
/db_xref="taxon:10116"
/clone="CH230-155P20"
1. .1246
/note="wgs_end_extension
clone_end:T7"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ~
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 22;
                         of 25
unknown
f 1446
                                                                                                                                                                                                                                                                                unknown
of 1777
unknown
of 1065
unknown
of 1354
                                                          of 1446
unknown
of 1548
unknown
of 1010
unknown
of 1298
unknown
                                                                                                                                                                                                                                                                                                                                                                                                      unknown
of 1987
unknown
of 1554
                                                                                                                                                                                                                                       of 1117
unknown
of 1052
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                of 2002
unknown
                                                                                                                                                                             of 1439
unknown
of 1277
unknown
             unknown
of 2961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             of 1296
                                                                                                                                                                                                                                                                                                                                                                                        of 1516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      end_sequence:BH365230"
55779. .57065
/note="wgs_end_extension
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     extension
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                extension
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    end_sequence:BH365228"
4700. .6491
/note="wgs_contig"
6592. .7882
/note="wgs_contig"
46254. .46724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    7;
No
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               boundary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            boundary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
1. .292913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .48 contig"
.454. .46724
/note="clone bounda:
clone end:Sp6
site:EcoRI
end_ser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                    contig
gap of
contig
gap of
contig
gap of
contig
                              contig
gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            i.ig
 contig
gap of
contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    clone_enc.
1780. .2901
/note="wgs_end_e
clone_end:T7"
3002. .4044
/note="wgs_end_f
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         gap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3642. . 21825
/note="clone ]
clone_end:T7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   89.5%;
256270:
259331:
259331:
260877:
260877:
262525:
263733:
263735:
263733:
265033:
265033:
265033:
265033:
265033:
272195:
272195:
272195:
272195:
272195:
272195:
272195:
272195:
272195:
272195:
272195:
272195:
272195:
272195:
272195:
272195:
272195:
272195:
272195:
272195:
272195:
272195:
272195:
272195:
272195:
272195:
272195:
272195:
272195:
272195:
272195:
272195:
272195:
272195:
272195:
272195:
272195:
272195:
272195:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196:
272196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  site: EcoRI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              clone_end:
3642._.218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
2552308
256371
256371
259332
259332
260878
262526
263636
265573
266573
266573
269167
272296
272296
272296
272296
272296
272296
272296
272296
272296
272296
272296
272296
272296
272296
272296
272296
272296
272296
272296
272296
272296
272296
272296
272296
272296
272296
272296
272296
272296
272296
272296
272296
272296
272296
272296
272296
272296
272296
272296
272296
272296
272296
272296
272296
272296
272296
272296
272296
272296
272296
272296
272296
272296
272296
272296
272296
272296
272296
272296
272296
272296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              misc feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         misc_featur
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ဗ္ဗ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  misc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         misc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     misc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURES
```

```
/codon start=1
/transl_table=11
/product="NADH dehydrogenase"
/protein_id="AAP11798.1"
/protein_id="AAP11798.1"
/db_xref="GI:29898526"
/translation="MVKTPKIVVLGAGYGGMITTVRLQKALSVNEAEITLVNNNSYHY
QATWLHESAAGTLQDEKICLDIQDVIDTNKVNFVQDTVVEIKAAEKRIILKDGELEYD
YLVIGLGFESETFGITGLKEHAFSIANINATREIREHMEASFSKYATEQRDELVTIVV
GGAGFTGIEYVGELANRVPELCKEYNVPREKARIICVEAAPTALPGFDPALVEYAVKQ
LEKKGVEFRIGTAIKEATEEGIIVANGDTELIKSETVVWAAGVRGNGIVEESGFEAM
RGRVKVDEYMHAPGYEDVFMVGDAALIINEEINRPYPPTAQIAIQOGYNIAHNLTVLV
RGKGEMKKFAFDNKGSVCSLGHDDAMGVVMGKKLTGWKASFMKKVIDNRYLFLLGGPL
                                                                                                                                                                                                                                                                         UCE 1 (bases 1 to 300854)

NRS Ivanova, N., Sorokin, A., Anderson, I., Galleron, N., Candelon, B., Kapatral, V., Bhattacharyya, A., Reznik, G., Mikhailova, N., Lapidus, A., Chu, L., Mazur, M., Goltsman, E., Larsen, N., D'Souza, M., Walunas, T., Grechkin, Y., Pusch, G., Haselkorn, R., Fonstein, M., Ehrlich, D.S.D., Overbeek, R. and Kyrpides, N. Genome sequence of Bacillus cereus and comparative analysis with Bacillus anthracis

Lactor Mature 423 (6935), 87-91 (2003)

E 22608415

E 2 (bacre)
                                                                                                                                                                                             BCT 16-MAY-2003
         ö
                                                                                                                                                                                             of 18 of the complete genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Chases 1 to 300854)

Ivanova, N., Sorokin, A., Anderson, I., Galleron, N., Candelon, B., Kapatral, V., Bhattacharyya, A., Reznik, G., Mikhailova, N., Lapidus, A., Chu, L., Mazur, M., Goltsman, E., Larsen, N., D'Souza, M., Walunas, T., Grechkin, Y., Pusch, G., Haselkorn, R., Fonstein, M., Ehrlich, D.S.D., Overbeek, R. and Kyrpides, N.

Direct Submission

Submitted (12-MAR-2003) INRA, Genetique Microbienne, Domaine de Submitted (12-MAR-2003) INRA, France

Location/Qualifiers

1. .300854
          Gaps
           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2 (bases 1 to 300854)
Candelon, B., Gailloux, K., Ehrlich, D.S. and Sorokin, A.
The number of ribosomal RNA operons in Bacillus cereus
            Indel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cereus ATCC 14579"
          .;
0
                                                                                                                                                                                             AE017014 300854 bp DNA Bacillus cereus ATCC 14579 section 17 AE017014 AE016877 AE017014.1 GI:29898525
            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /organism="Bacillus cereu/mol_type="genomic DNA"
/strain="ATCC 14579"
/db_xref="ATCC:14579"
/db_xref="taxon:226900"
complement(91..1302)
/locus_tag="BC4925"
/locus_tag="BC4925"
/BC_number="1.6.99.3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /locus_tag="BC4926"
1755. .2750
/locus_tag="BC4926"
/EC_number="1.6.4.5"
/codon_start=1
                                                                                              3673
            ő
                                                    19
                                                                                        3657 fratrgarrcrgraggr
                                                    TTATTGATTCTGTAGGT
              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Unpublished 3 (bases 1
            17;
                                                       ന
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      source
                                                                                                                                                          RESULT 45
AE017014/c
                                                                                                                                                                                               LOCUS
DEFINITION
ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                            ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          JOURNAL
MEDLINE
PUBMED
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gene
                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            gene
.
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CDS
                                                                                                                                                                                                                                                                                  KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE
                                                                                                                                                                                                                                                                                                       SOURCE
                                                                                               g
                                                         ò
```

~

gene

CDS

```
PGSIQYISGSNKGNKTDDASDEAFFUNNQIDFRUGGANAKDGGVLKPGESALITFK
VKVKASVQSDTTVKNIVVVKGQDSTEVNYETADDADITVTTPKEIPGEIBAKKIASNK
TPKLGEEVEYRITFKNKTYDGSDSTEVNYETADDADITVTTPKEIPGEIBAKKIASNK
TPKLGEEVEYRITFKNKTKDGKLDVLTIEDELPSNLEYVKDSLKAEGAKPEPVELKFE
NGKVIAKYPEIMDMEERSIVFKTKVKETAKIGEEIVNKATVSDKTNPPKNLEEKITPQ
HKAGKIAAKKKATNKKPKLGEEVEYQISFQNYVENGKLDAVTIEDEIPANLEFYVGSE
RAEGAEPNPVELKVENGKVIAKYPEIMDTKERSIAFKVKVKEEARAGGTIVNKAVVSE
PNGQTEHPEEKITPDYKYGKVDVEKSVTNQTPKLGEEVEYRITFYNTVENGKLEKVLV
EDTLPKGVEYVKDSLKAEGIKPEPVELKVEDGKVMAKYPEITDTEKRSIVFKVKVKDS
AKVGEAIVNKAIAKDPKNEPVESKVVITPQSKKGEIAATKVVNNKKPKLGEEIEYRIS
FHNTVENGKLEEVRVEDTIPKGLEYVENSIKAEGEAPGPVELAVENGIVKAKYIDIMD
MKERSIVFKVKVKEEAAKVDKEIVNKAIVDDTKNPPIEPEERITPQHKDGIIDSKKTVD
NPSPKLGEEVEYRISFKNTVENGKLEKVIIEDTIPNGLEYVKGSEKAEGDKPAPLKLS
VKDGKVIAEYRISTRNTVENGKLEKVIIEDTIPNGLEYVKGSEKAEGDKPAPLKLS
LKAEGVGTDSVELKFENGKVMAKYPEIMDTEERSIVFKVKVKGSEKATTEV
IHKDGKIKAKKSVNNETPKLGEEVEYRISMKNTVKYGKLTDVIIEDTLPFGEETYVKG
KVSDSIVNPTAEIIPQHKDGYLEAKKMVNNETPKLGEEVEYRISFKNTVENGKTTEVK
IEDDLPNGLEYVKDSVKVEGSKPDPVELKFENGKVMAKYPEITDTKERSITFKVKVKG
KVSDSIVNPTAEIIPQHKDGYKDEVKFENGKVMAKYPEITDTKERSITFKVKVKG
KVSDSIVNPTAEIIPQHTENDATTAEIIPQHKDGKVKATKTTVNNTTPKLGEEVEYRISF
KNTTT FROM FERNIT FERNIT FROM FERNIT FROM FERNIT FER
                                                                                                                                                                                                                                                                            GGQLSALYPEKYIYDVAGFPKVRAQELVDNLKEQMKKFDPTVCLEEAVDTLEKQADGI
FKLVTNKQTHYSKSVIITAGNGAFQPRRLELEGTAKYEKKNLHYFVDDMNKFAGKRVV
VFGGGDSAVDWTMMLEPIAEKVTIVHRRDKFRAHEHSVENLMNSRAEVSTPYVPVELI
GDDKIEQVVLQHVKTEEKVIIDVDDVIVNYGFVSSLGPIKNWGLDIQKNSILVNSKME
TNIPGIYAAGDICTYEGKVKLIACGFGEAPTAVNNAKAYFDPNAKLQPMHSSSMF"
complement (2865. .12986)
/locus_tag="BC4927"
/locus_tag="BC4927"
/codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KNTVEDGKLAEVKIEDTLPEGLEYVENSVKAEGSKPDPVELKFENGKVMAKYPEITDT
EERSITFKVKVKUDEVKVGKKIVNKAIIDDTKNEPETPTAEITPQHKDGKVEAKKTVNN
ETPKLGEEVEYRISFKNTVENGKLAEVTIKDDLPNGLEYVKDSLRAEGSKPDPVELKV
KDGKVIAKYPEIMDTEERSIVFKAKVKEEFKVGEGIVNKVVVDDTKDPTTSEVTITPE
YKDGKLKAEKFVNNKKPRKLGEEVEYRISFKNTVENGKLVEVTVEDEIPAGLEYVENSL
QAEGSKPSPVELKFENGKVMAKYLEIADTKERSIIFKVKVKEEAEIGKEIVNKAIVVD
TKNEPEEPRVEITPQYKDGKIAAQKVANNHKPKLGEEVEYRISFKNTVENGKLVEVNI
KDTLPNGLEYVEGSITAEGSKPRPVELQVKNNKVMAKYPEITDTEERSIVFKAKVKES
VKVGEEIVNEAIIDDTKNLPEEPYVPITPQYKDGKIEARKEVSNHEPKLGEEIEYRII
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /translation="MKQVLKCFNVVTMITLLLSIILPSPSAFAEINKKSWDELQGNDV
KIKAEQVNAEIYKGEVAKREHVFQYTIENTGATPIQELVLKQNNENEITFLSQSVKVN
GEKLPENKVADFYVEEKDKGGKVLSSNLKIRDLKSHEKMTVLIKASRTQHFNKEYKQK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ISVQKDKVQIGNMSVDVEGIPSEEKVAANADEEADSSKKEVGPSANNTIKKVDEKLKV
SVEDKNNPTSKTELPKQPVTEAEKQPEKEAVKQNVAEVQAAPENASKVQIQTGDKQGF
GDPLYSTITAGNLVQTGNVTLGLTTDHYGRQSLGYKTNKMTVDVDNDDSTFNSSTGAF
PTIPAGSKVKKAYLFWTAAMGTPTYPSKEYRVSDADVREPVKMKMGNKGYAEVSADSI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DPAEKDGYAYDYGEYDFGAGYIKIKNINGKDNDANDSSMTEVQVDGTNEFVTKKYPGY
NPDWTNSFSTDIHTYHLEGPTQVKNDLKEGKMRFRAYAGTGDIYVLNNATFVTEHNAP
NLQVDKKALDSTGKEIKEIKAGEEFTYQIEVKNDTKNNQAPVSNVKGFDKLDDRLEYV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TKERSIVFKVKVKDSVAIGKDITNKAIIHVDDPNHPVIDPTAKITPQYKDGKIATHKK
VNNHKPKLGEEIEYRISFNNTVKDGKLAEVKIEDEIPSGLEYVKDSLKAEGDKPAPVE
LKEEAGKVSAKYENITDMKERSIIFKVKVKDSVEVDKAIVNKAIVDDTKNPPERPEVE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RKADYLPYISNYSGAGAGYVAYADVTNVIAQQGISQTVTVANVPQIKFEKGSGYYWGN
WNLILVYENHKETVKDMKIWEGLVSQKSTAWTDISVNKINTPKEGAFKAKFSYFSSQG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IVDDDNPKNPPQKPEAIITPEYKDGKLKAEKTVNNPAPKLGEEVEYRITFRNVVEHGK
VAKVKIKDELPTGLEFVEGSERAEGENPKPLYVKVKNGIVLAEYPEITDMKERSIVFK
VKVKEKAKVGEEIVNKAIVEDTINPPEQPNISIQPQYKDGALQAEKTVSNHEPKLGEE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          YPEITDTKKRSIIFKVRVQETVQVGKEIVNKAIVDDNNPTPPPVESLIPITPQYKDGK
LEARKEVSNHEPKLGEEIEYRITFNGTVDGGKLVDVKIEDEIPSGLEYVKDSLEAVGD
KPVPTELKVENGKVTVKYPEITDTKERSVIFKVKVKETAKVGGEITNKAIIEVDDPKH
PVIEPTAKIKPEYKDGKLTAAITVSNKEPKLGEEVEYRISFKNTGENGKLDVVTIEDE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           I TPOHKDGKVKADKKVNKKDPKLGEEVEYR I SFKNTVENGKLAEVKI EDOLPTGLEYV
KDSLKSEGNEPAPVELKEEAGKI TAKYENI I DTAERS I I FKVKVTEVAKVGKKI VNTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VEYRISFENTVENGKLTEVKVEDEIPAGLEYVQDSIKSDGPEPYPVELKVENGKVTAK
                                     /product="Thioredoxin reductase"
/protein id="AAP11799.1"
/db_xref="GI:29898527"
/translation="MKVAENQKVYDITIIGGGPTGLFTAFYGGMRQA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                'product="Cell surface protein"
'protein id="AAP11800.1"
'db_xref="GI:29898528"
'translation="MKQVLKCFNVVTMITLLLSIILPSPSAFAEINK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /transT_table=11
/product="Cell surface
table=11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             transl
```

FNAKVKEAPSK

IPAGLEYVQGSIRFEGAEPNPIELKMEFGKVIAKYLEITDTKERSII

```
Leg="BC4929"

/codon_start=1
/transl_table=11
/product="Macrolide-efflux protein"
/product="Macrolide-efflux protein"
/protein_id="AAP11802.1"
/db_xref="Macrolide-efflux protein"
/protein_id="AAP11802.1"
/db_xref="G1:2989830"
/translation="MEELQDNKTALEGSGKPLLKNTNFLFLWAATLFSSFALAFFTFS
QTWYIAKTIANLEASLGVVFVALSVPRLIFMIVGGAVADKFPKKNIMFYSNIIRAILVA
TILWFFYTGDITLYFALPFLFFELDAAFFWSADGSILPETVENSKITQANSLTQMNU
QASVILGPVLGGILIKFTNYFTIFIITILLIVAALLVQKIQFTWPEQKDTDKGMFTS
ILWFGILIYVKBSFFLSTFLICSAFLNIFLIGFWQVGFPLSINFSTVLWQALLAGMFYGITI
AMAIVPLMAMIQSTVKEEWWGRVMSLLMLSSWGFIPLSYAFTSIALAIGIPIVTVWKS
GGRAIGAVIVFVLFVAIRVEWWGRYWSLLMLSSWGFIPLSYAFTSIALAIGIPIVTVWKS
GGRAIGAVIVFVLFVAIRTWPVVRKFD"
complement (15379. .16266)
/locus_tag="BC4930"
/codon_start=1
/transl_tab)
/pro-2
GITNKAVVDDKINPPLEPTVTILPKTKEDFKIPEDPKEPKEPEVKPEDPKEPEVK
PEDPKEPKEPEVKPEDPKEPEVKPEDPKEPKEPEVKPEDPKEPEVKPEDPKE
PKEPEVKPEDPKEPKEPEVKPEDPKEPKEPEVKPEDPKEPEVKPEDPKEPEV
KPEDPKEPKEPEVKPEDPKEPKEPEVKPEVKPEVKLEKLIKEPQVKTERELPKTGAASPWM
                                                                                                                                                                                                                 /transl_table=11
/product="DNA-binding protein YobU"
/protein_id="AAP11801.1"
/db_xref="GI:29898529"
/translation="MINEPNIMKKEAFQAIGVSVTTTNEREASTKGKISELWNRYFQE
/translation="MINEPNIMKKEAFQAIGYSVTTTNEREASTKGKISELWNRYFQE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /product="hypothetical Cytosolic Protein"
/product="hypothetical Cytosolic Protein"
/protein_id="AAP11804.1"
/db_xref="GI:29898532"
/translation="MIVISACLGGIACRYDGNDNLVSKIEELLOKEDTVLICPEVLGGLATARPSAEIIGGNGDDVLDGKAKVMTKDGEDVTEAFVSGAYKALEQIKNLHPEYIIL KERSPSCGSSTIYTGEFNGKKOTGFGVTTALFKRHGFKVISEEFFENKKRN"
complement(16839...17192)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /transl_table=11
/product="Transcriptional regulator, DeoR family"
/protein_id="AAP11803.1"
/db_xref="GI:29898531"
/translation="MGSLYNLMKPYSEFQSKEEFNTYQKQVLKHYRFQLNKTDATIIH
FLGKYAVNEKQKTVGVACPLMETIATNVGKSIRTVRRSIAKLEELGIIKRVATKERHR
RGGYSANLYVFLISAIDRMDDRMKMSACESEDYTAGCSGKEQKSERETILSKNIPQIK
EKRITYELDETYCRHDIPKPFIYALLPMTSNPKKINIFWSKVELAYKKSGLLEQGVL
LEQILADEEVYGNFIWRVKSVVRAYKYGEIRKNVKALLYSTVRDLFLEVGLEWGAAVR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ·;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 300854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ·;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /locus_tag="BC4932"
                                                                                        SVGAGISFLVGGVLFVLGRRRKQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 17;
Pred. No.
                                                                             /locus_tag="BC4928"
/locus_tag="BC4928"
/locus_tag="BC4928"
/locus_tag="BC4928"
/codon_start=1
/trans1_tab=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      16347. .16808
/locus_tag="BC4931"
16347. .16808
/locus_tag="BC4931"
/codon_start=1
/trans1_table=11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    169005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      89.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AATTATTGATTCTGTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity 17; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   69021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local
                                                                                                           gene
                                                                                                                                                                                                                                                                                                                                                                        gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                       CDS
                                                                                                                                                                                                                                                                                                                                                                                                                  CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   <del>a</del>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
```

Search completed: April 26, 2005, 16:01:54 Job time : 1826 secs

THIS PAGE BLANK (USPTO)

Н

Mon

ΣO

```
179, Appli
179, App
e 2908, Ap
e 323, Appli
e 1026, Ap
e 1027, Ap
e 101, App
53, Appl
1127, Ap
                                                                                                            тев/вес
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              printed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ce 5,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 18 Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence 18 Sequence 11 Sequence 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ion
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 have
                                                                                                            upda
                                                                                                                                                                                                                                                                                                                                                                                    Published Applications NA:*

| cgn2_6/ptodata/1/pubpna/US07_PUBCOMB.seq:*
| cgn2_6/ptodata/1/pubpna/PCT_NEW_PUB.seq:*
| cgn2_6/ptodata/1/pubpna/US06_NEW_PUB.seq:*
| cgn2_6/ptodata/1/pubpna/US06_PUBCOMB.seq:*
| cgn2_6/ptodata/1/pubpna/US07_NEW_PUB.seq:*
| cgn2_6/ptodata/1/pubpna/US08_NEW_PUB.seq:*
| cgn2_6/ptodata/1/pubpna/US08_NEW_PUB.seq:*
| cgn2_6/ptodata/1/pubpna/US08_NEW_PUB.seq:*
| cgn2_6/ptodata/1/pubpna/US09_PUBCOMB.seq:*
| cgn2_6/ptodata/1/pubpna/US09_PUBCOMB.seq:*
| cgn2_6/ptodata/1/pubpna/US09_PUBCOMB.seq:*
| cgn2_6/ptodata/1/pubpna/US09_PUBCOMB.seq:*
| cgn2_6/ptodata/1/pubpna/US10A_PUBCOMB.seq:*
| cgn2_6/ptodata/1/pubpna/US10B_PUBCOMB.seq:*
| cgn2_6/ptodata/1/pubpna/US10B_PUBCOMB.seq:*
| cgn2_6/ptodata/1/pubpna/US10B_PUBCOMB.seq:*
| cgn2_6/ptodata/1/pubpna/US10F_PUBCOMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 by chance to have the result being a distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Descript
                                                                                 Seconds
                                                                                                                                                                                                                                                                                            11267456
                                                                                                         cell
                                                                              Search time 500 Seco (without alignments) 230.700 Million cell
5.1.6
Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-10-619-906-5

US-09-920-455-179

US-09-969-034-2908

US-10-337-632-3

VS-10-295-027-323

US-10-295-027-1026

US-10-295-027-1027

US-10-295-027-1027

US-10-384-339C-101

US-09-954-456-53

US-09-954-456-1127

US-09-954-456-1127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               results predicted by to the score of the of the total score di
                                                                                                                                                                                                                                                                                            parameters
                                                                                                                                                                                                                                      residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SUMMARIES
version - 2005
                                                                                                                                                                                                                                                                                                                                                                  summaries
                                                      model
                                                                                  • ••
                                                                                                                                                                                                           0
                                                                                  16:02:03
                                                                                                                                                                                                                                      3035525691
                                                                                                                                                                   ~
                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                            satisfying chosen
                                                       3
                                                                                                                                                                    aattattgattctgtaggt
GenCore
(c) 1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10
                                                                                                                                                                                                             Gapext
                                                       using
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  No. is the number of r
greater than or equal
derived by analysis o
                                                                                                                                                                                                                                                                                                                                                                 45
                                                                                                                                                                                                                                                                                                                         2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              11
11
11
11
11
11
11
10
10
10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB
                                                                                                                                     US-10-619-906-5
                                                                                  2005,
                                                                                                                                                                                                                                                                                                                                                                first
                                                                                                                                                                                                                                        seds,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           19
458
589
1413
1413
1413
1653
1778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length
                                                       nucleic search,
              Copyright
                                                                                                                                                                                             OLIGO NUC
Gapop 60.0
                                                                                                                                                                                                                                                                                                                                                                                            Published
                                                                                  26
                                                                                                                                                                                                                                                                                                                                                                  Post-processing: Listing
                                                                                                                                                                                                                                        5633728
                                                                                                                                                                                                                                                                                                                       length:
length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query
Match
                                                                                April
                                                                                                                                                                                                                                                                                            hits
                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                            of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sed
sed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score
                                                                                                                                                      score:
                                                                                                                                                                                              table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1.8
                                                                                                                                                                                                                                                                                              Total number
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pred.
score
                                                                                                                                                                                                                                                                                                                         08
08
                                                       nucleic
                                                                                                                                                                                                                                                                   size
                                                                                                                                                                                                                                        earched:
                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                              Database
                                                                                                                                        Title:
Perfect
                                                                                                                                                                                             Scoring
                                                                                                                                                                                                                                                                                                                                       Maximum
                                                                                                                                                                                                                                                                                                                          Minimum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               12645078611
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Result
No.
                                                                                  Run on
                                                                                                                                                                                                                                                                   Word
```

```
Sequence 2179, Apply Sequence 218, Apply Sequence 134, Apply Sequence 122, Apply Sequence 124, Apply Sequence 12, Apply Sequence 1001, Apply Sequence 1001, Apply Sequence 1001, Apply Sequence 1154, Apply Sequence 2156, Apply Sequence 2156, Apply Sequence 2156, Apply Sequence 2156, Apply Sequence 2152, Apply Sequence 2154, Apply 2154, Apply 2154, Apply 2154, Apply 2154, Apply 2154, Apply 2154, App
US-09-880-107-2179
US-09-920-455-218
US-09-973-367C-439
US-09-873-367C-1001
US-10-171-311-134
US-10-171-311-134
US-10-171-311-134
US-10-171-311-134
US-10-171-311-134
US-10-172-118-769
US-10-172-118-769
US-10-172-118-769
US-10-172-118-769
US-10-172-118-769
US-10-172-118-769
US-10-172-118-769
US-10-172-118-769
US-10-173-18-1001
US-10-173-18-1001
US-10-173-18-1001
US-10-173-18-11001
US-10-173-17-40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    619,90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-10-619-906-5
; Sequence 5, Application US/10619906
; Publication No. US20040087533A1
; GENERAL INFORMATION:
; APPLICANT: Index Pharmaceuticals
; TITLE OF INVENTION: New Compound
; FILE REFERENCE: 50299
; CURRENT APPLICATION NUMBER: US/10/619
; CURRENT FILING DATE: 2003-07-16
; NUMBER OF SEQ ID NOS: 23
; SOFTWARE: Patentin version 3.1
; SEQ ID NO 5
; LENGTH: 19
; TYPE: DNA
; ORGANISM: Artificial
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (1)..(19)
                                             NAME/KEY: misc_feature
LOCATION: (1)..(19)
OTHER INFORMATION: SEQ 1
       1111
12111
12111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
1311
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
1311
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
1311
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
1311
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
1311
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
1311
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
1311
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
1311
13111
13111
13111
13111
13111
13111
13111
13111
13111
13111
131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT
```

Q

Gaps

ö

Ø

Indel

O

σ H

Length

17

DB 1

Score 19; DB Pred. No. 0.3; Mismatches

ó;

h 100.0% Similarity 100.0% 19; Conservative

Query Match Best Local S Matches 19

19

Φ

Н

AATTATTGATTCTGTAGGT

d

00000000000

ਠੋ

RESULT 2 US-09-920-455-179/c ; Sequence 179, Application US/09920455

oligonucleotide

antisense

5,

8

ΩI

us-10-619-906-5.rnpb

```
US-10-295-027-323/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 323, A
Publication No.
                                                                                                                                                                                                                             ; ORGANISM: H
US-10-337-632-3
                                                                                                                                                                                                                                                                                  Query Match
Best Local S
Matches 19
                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT
                                                                                                                                                                                                                                                                                                                                                                                          Б
                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;
0
       GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Wang, Tongtong
APPLICANT: Fan, Liqun
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
TITLE OF INVENTION: AND DIAGNOSIS OF HEAD AND NECK CANCER
FILE REFERENCE: 210121.540
CURRENT APPLICATION NUMBER: US/09/920,455
CURRENT FILING DATE: 2001-08-01
NUMBER OF SEQ ID NOS: 275
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 179
LENGTH: 458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 2908, Application US/09969034
; Sequence 2908, Application US/09969034
; Publication No. US20040110668A1
; GENERAL INFORMATION:
; APPLICANT: Burgess, Christopher C.
; APPLICANT: Carroll, Eddie III
; APPLICANT: Carroll, Eddie III
; APPLICANT: Catino, Theodore J.
; APPLICANT: Catino, Theodore J.
; APPLICANT: Dwivedi, Poornima
; APPLICANT: Molino, Gary A.
; APPLICANT: Thiagalingam, Arunthathi
; APPLICANT: Lewis, Marcia E.
; TITLE OF INVENTION: Nucleic Acid Sequences Differentially
; TITLE OF INVENTION: Expressed in Cancer Tissue
; FILE REFERENCE: 1657/1032
; CURRENT FILING DATE: 2001-10-02
; PRIOR FILING DATE: 2000-02-10
; PRIOR FILING DATE: 2000-02-10
                                                                      THERAPY
                                                                                                                                                                                                                                                                                                   Length 458
                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                                                                                                                                                    ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            586,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ·,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 11;
                                                                                                                                                                                                                                                                                                   ٠<u>.</u>
                                                                                                                                                                                                                                                                                                                     0.48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%; Score 19; DB 1.
100.0%; Pred. No. 0.49;
ive 0; Mismatches
                                                                                                                                                                                                                                                                                                   DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            576,
                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                  Score 19;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           572,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQ ID NOS: 4494
SOFTWARE: FastSEQ for Windows Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         , 545,
or G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-10-337-632-3/c; Sequence 3, Application US/10337632; Publication No. US20030157110A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                     1 AATTATTGATTCTGTAGGT 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 AATTATTGATTCTGTAGGT 19
                                                                                                                                                                                                                                                                                                                                     ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ·;
                                                                                                                                                                                                                                                                                                  100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                 348 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE:
NAME/KEY: misc_feature
LOCATION: 456, 463, 481, 541,
OTHER INFORMATION: n = A,T,C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           419 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
No. US20020168647A1
                                                                                                                                                                                                                                           ORGANISM: Homo sapiens -09-920-455-179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: DNA ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                 Local Similarity
les 19; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -09-969-034-2908/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-969-034-2908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQ ID NO 2908
LENGTH: 589
                                                                                                                                                                                                                             TYPE: DNA
                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                 Best
                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT
                                                                                                                                                                                                                                                                                                                                                                                                      D
D
                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
```

```
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Afar, Daniel
APPLICANT: Afar, Daniel
APPLICANT: Aziz, Natasha
APPLICANT: Ginsberg, Wendy M.
APPLICANT: Gish, Kurt C.
APPLICANT: Glynne, Richard
APPLICANT: Mack, David H.
APPLICANT: Marson, Susan R.
APPLICANT: Watson, Susan R.
APPLICANT: Fos Biotechnology, Inc.
TITLE OF INVENTION: Methods of Diagnosis of Cancer,
TITLE OF INVENTION: Methods of Screening for Modulators of Cancer
FILE REFERENCE: 018501-012500US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PALM
TITLE OF INVENTION: METHODS FOR THE TREATMENT OF METABOLIC
TITLE OF INVENTION: DISORDERS, INCLUDING OBESITY AND DIABETES
FILE REFERENCE: MPI01-253PIRM
CURRENT APPLICATION NUMBER: US/10/337,632
CURRENT FILING DATE: 2003-01-07
PRIOR APPLICATION NUMBER: 60/346,354
PRIOR FILING DATE: 2002-01-07
NUMBER OF SEQ ID NOS: 6
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 3
LENGTH: 1413
TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ·;
                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 1413;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                See File Wrapper
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ·;
                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 19; DB 16;
Pred. No. 0.52;
; Mismatches 0.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION NUMBER: US/10/295,027
CURRENT FILING DATE: 2002-11-13
PRIOR APPLICATION NUMBER: US 09/663,733
PRIOR FILING DATE: 2000-09-15
PRIOR FILING DATE: 2001-11-13
PRIOR FILING DATE: 2001-11-13
PRIOR FILING DATE: 2001-11-15
PRIOR FILING DATE: 2001-11-25
PRIOR FILING DATE: 2001-11-26
PRIOR FILING DATE: 2001-11-29
PRIOR FILING DATE: 2002-01-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION NUMBER: US 60/356,714
PRIOR FILING DATE: 2002-02-13
Remaining Prior Application data removed
NUMBER OF SEQ ID NOS: 1386
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 323
LENGTH: 1413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Application US/10295027
.. US20030232350A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ·;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity 100.08
19; Conservative
                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  , ORGANISM: Homo
US-10-295-027-323
```

ö

3

```
ö
                                           oʻ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ALM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               of Cancer, Compositions
g for Modulators of Cance
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ቯ
                                           ö,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 1413;
 Length 1413;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       File Wrapper
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                           ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      17;
DB 17;
0.52;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 19; DB 1
Pred. No. 0.52;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          See
 Score 19; DB
Pred. No. 0.5
; Mismatches
                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
APPLICANT: Afar, Daniel
APPLICANT: Ginsberg, Wendy M.
APPLICANT: Ginsberg, Wendy M.
APPLICANT: Gish, Kurt C.
APPLICANT: Gish, Kurt C.
APPLICANT: Gish, Kurt C.
APPLICANT: Gish, Kurt C.
APPLICANT: Mack, David H.
APPLICANT: Mack, David H.
APPLICANT: Mack, David H.
APPLICANT: Watson, Susan R.
APPLICANT: Watson, McHods of Diagnosis of CITILE OF INVENTION: Methods of Screening for FILE REFERENCE: 2002-11-13
PRIOR FILING DATE: 2001-11-13
PRIOR FILING DATE: 2001-11-15
PRIOR FILING DATE: 2001-11-29
PRIOR FILING DATE: 2002-01-08
PRIOR FILING DATE: 2002-01-10
PRIOR FILING DATE: 2002-01-10
PRIOR PRILING DATE: 2002-01-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR FILING DATE: 2002-02-13
Remaining Prior Application data removed NUMBER OF SEQ ID NOS: 1386
SOFTWARE: Patentin Ver
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 1027, Application US/10295027 Publication No. US20030232350A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                          Sequence 1026, Application US/10295027 Publication No. US20030232350Al GENERAL INFORMATION:
                                                                                                                                  343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                19
                                                                                          AATTATTGATTCTGTAGGT 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .;
0
                                              .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%;
100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        361 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 AATTATTGATTCTGTAGGT
                                                                                                             361 AATTATTGATTCTGTAGGT
 100.0%;
larity 100.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
Matches 19; Conser
                        Best Local Similarity
Matches 19; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 7
US-10-295-027-1027/c
                                                                                                                                                                                                 RESULT 6
US-10-295-027-1026/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-10-295-027-1026
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ID NO 1026
ENGTH: 1413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DNA
   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                    g
                                                                                           ò
```

```
A TARGET GE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION COMPOSITIONS AND METHODS FOR INHIBITING EXPRESSION OF A TRITICE OF INVENTION: COMPOSITIONS AND METHODS FOR INHIBITING EXPRESSION OF A TRITICE OF INVENTION: COMPOSITIONS AND METHODS FOR INHIBITING EXPRESSION OF A TRITICE OF INVENTY FILING DATE: 2003-03-07; CURRENT FILING DATE: 2003-01-09; PRIOR FILING DATE: 2002-01-09; PRIOR FILING DATE: 2001-01-09; PRIOR FILING DATE: 2001-10-26; PRIOR FILING DATE: 2001-10-26; PRIOR FILING DATE: 2001-11-29; PRIOR FILING DATE: 2001-12-07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .;
0
                                                                                                                                                 APPLICANT: Marck, David H.

APPLICANT: Watson, Susan R.
APPLICANT: Ess Biotechnology, Inc.
ITILE OF INVENTION: Methods of Diagnosis of Cancer, Compositions and TITLE OF INVENTION: Methods of Screening for Modulators of Cancer, TITLE OF INVENTION: WUMBER: US/10/295,027
CURRENT APPLICATION NUMBER: US 60/363,733
PRIOR APPLICATION NUMBER: US 60/350,666
PRIOR FILING DATE: 2001-11-13
PRIOR APPLICATION NUMBER: US 60/332,464
PRIOR FILING DATE: 2001-11-21
PRIOR APPLICATION NUMBER: US 60/332,464
PRIOR PRILING DATE: 2001-11-24
PRIOR APPLICATION NUMBER: US 60/340,376
PRIOR PRILING DATE: 2001-11-24
PRIOR APPLICATION NUMBER: US 60/340,376
PRIOR APPLICATION NUMBER: US 60/347,211
PRIOR APPLICATION NUMBER: US 60/347,211
PRIOR APPLICATION NUMBER: US 60/347,211
PRIOR APPLICATION NUMBER: US 60/347,210
PRIOR PILING DATE: 2002-01-10
PRIOR APPLICATION NUMBER: US 60/347,210
PRIOR PILING DATE: 2002-01-10
PRIOR PILING DATE: 2002-01-10
PRIOR APPLICATION NUMBER: US 60/347,210
PRIOR PILING DATE: 2002-01-10
PRIOR APPLICATION NUMBER: US 60/347,210
PRIOR APPLICATION NUMBER: US 60/347,210
PRIOR PILING DATE: 2002-01-10
PRIOR PILING DATE: 2002-01-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   See File Wrapper or PALM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 1413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 19; DB 1
Pred. No. 0.52;
Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION NUMBER: US 60/356,714
PRIOR FILING DATE: 2002-02-13
Remaining Prior Application data removed
NUMBER OF SEQ ID NOS: 1386
SOFTWARE: Patentin Ver. 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-10-384-339C-101/c; Sequence 101, Application US/10384339C; Publication No. US20040175703A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%;
Aziz, nacazza
Ginsberg, Wendy M
Gish, Kurt C.
Glynne, Richard
Hevezi, Peter A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity 100
19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sapiens
                                                                                                         Hevezi, Pet
Mack, David
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; ORGANISM: Homo US-10-295-027-1027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NO 1027
TH: 1413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local S
Matches 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE:
SEQ ID NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
```

us-10-619-906-5.rnpb

Cance

```
Therapeutic Agents Using
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Identifying Anti-Cancer Therapeutic Agents Using
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 1778;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                        Identifying Anti-Cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 9;
0.53;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 19; DB Pred. No. 0.5; Mismatches
            US-09-954-456-1127/c

Sequence 1127, Application US/09954456

Patent No. US20020115057A1

GENERAL INFORMATION:

APPLICANT: Young, Paul

TITLE OF INVENTION: Sets

TITLE OF INVENTION: Sets

FILE REFERENCE: 689290-76

CURRENT APPLICATION NUMBER: US/09/954,456

CURRENT FILING DATE: 2001-09-18

PRIOR PILING DATE: 2000-09-18

PRIOR FILING DATE: 2000-09-20

PRIOR FILING DATE: 2000-09-25

PRIOR FILING DATE: 2000-09-25

PRIOR FILING DATE: 2000-09-25

PRIOR FILING DATE: 2000-09-26

PRIOR FILING DATE: 2000-09-27

PRIOR PRIOR PRIOR DATE: 2000-09-27

PRIOR FILING DATE: 2000-09-27

PRIOR FILING DATE: 2000-09-27

PRIOR FILING DATE: 2000-09-27

PRIOR PRIOR PRIOR DATE: 2000-09-27

PRIOR PRIOR PRIOR DATE: 2000-09-27

PRIOR PRIOR PRIOR DATE: 2000-09-27

PRIOR DATE: 2000-09-27

PRIOR DATE: 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 1799, Application US/09954456

Sequence 1799, Application US/09954456

Patent No. US20020115057A1

GENERAL INFORMATION:

APPLICANT: Young, Paul

TITLE OF INVENTION: Sets

FILE REFERENCE: 689290-76

CURRENT FILING DATE: 2001-09-18

PRIOR PILING DATE: 2000-09-18

PRIOR FILING DATE: 2000-09-18

PRIOR FILING DATE: 2000-09-26

PRIOR APPLICATION NUMBER: US/60/234, 052

PRIOR FILING DATE: 2000-09-26

PRIOR FILING DATE: 2000-09-25

PRIOR FILING DATE: 2000-09-26

PRIOR PRIOR APPLICATION NUMBER: US/60/235, 638

PRIOR FILING DATE: 2000-09-26

PRIOR FILING DATE: 2000-09-26

PRIOR FILING DATE: 2000-09-26

PRIOR PRIOR FILING DATE: 2000-09-26

PRIOR PRIOR FILING DATE: 2000-09-26

PRIOR PRIOR PRIOR DATE: 2000-09-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US/60/235,720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR FILING DATE: 2000-09-27
NUMBER OF SEQ ID NOS: 2276
SOFTWARE: PatentIn version 3.0
EQ ID NO 1127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      373 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
Matches 19; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-954-456-1799/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-954-456-1127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ~
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     for Identifying Anti-Cancer Therapeutic Agents Using Canc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ő
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                 Length 1653;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 1778;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .
0
                                                                                                                                                                                                                                                                                                                                                                                                                    18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 19; DB 9;
Pred. No. 0.53;
Mismatches (
                                                                                                                                                                                                                                                                                                                                                                                                      Score 19; DB 18
Pred. No. 0.52;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
APPLICANT: Young, Paul
TITLE OF INVENTION: Sets
FILE REFERENCE: 689290-76
CURRENT APPLICATION NUMBER: US/09/954,456
CURRENT APPLICATION NUMBER: US/09/954,456
CURRENT FILING DATE: 2001-09-18
PRIOR APPLICATION NUMBER: US/60/233,617
PRIOR FILING DATE: 2000-09-20
PRIOR FILING DATE: 2000-09-25
PRIOR APPLICATION NUMBER: US/60/235,134
PRIOR APPLICATION NUMBER: US/60/235,637
PRIOR APPLICATION NUMBER: US/60/235,637
PRIOR APPLICATION NUMBER: US/60/235,637
PRIOR FILING DATE: 2000-09-26
PRIOR FILING DATE: 2000-09-26
PRIOR FILING DATE: 2000-09-27
PRIOR APPLICATION NUMBER: US/60/235,710
PRIOR FILING DATE: 2000-09-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: 2000-09-2/
APPLICATION NUMBER: US/60/235,863
                                                                                                                                                                                                                                                       Or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         53, Application US/09954456
. US20020115057A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         19
                                                                                                                                                                                                                                                                                                                                 XM006272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .;
0
                                                                                                                                                                                                                                                   U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     373 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PatentIn version 3.0
                                                                                                                                                                                                                                                   Ö
                                                                                                                                                                                                                                               Ę,
                               4
                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity 100 19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity 100
19; Conservative
                                                                                                                                                                                    NAME/KEY: misc feature
LOCATION: (626)..(925)
OTHER INFORMATION: n=A, T
PUBLICATION INFORMATION:
TITLE: MMP12
PATENT DOCUMENT NUMBER: XI
 173
SEQ ID NOS: 1. PatentIn Ver.
                                                                                                    TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OF SEQ ID NOS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 53, Applica
Patent No. US2002011
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM: Homo
-09-954-456-53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SULT 9
-09-954-456-53/c
                         SOFTWARE: Pate
SEQ ID NO 101
LENGTH: 1653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           53
1778
                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local S
Matches 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local S
Matches 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SOFTWARE:
 NUMBER OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
```

Cance

.. 0

Gaps

ò

```
US-09-873-367C-1001/c

i Sequence 1001, Application US/09873367C

j Sequence 1001, Application US/09873367C

j Publication No. US20030165839A1

j GENERAL INFORMATION:

j APPLICANT: Young, Paul

j APPLICANT: Soppet, Daniel

j APPLICANT: Soppet, Daniel

j APPLICANT: Reinhard

j APPLICANT: Reinhard

j APPLICANT: Reneth

j APPLICANT: Carter, Renneth

j TILLE OF INVENTION: Signature Gene Sets

ritle OF INVENTION: Signature Gene Sets

ritle OF INVENTION: Signature Gene Sets

ritle OF INVENTION NUMBER: US/09/873,367C

current APPLICATION NUMBER: U.S. 60/236,891

prior FILING DATE: 2000-09-29
                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Soppet, Daniel
APPLICANT: Soppet, Daniel
APPLICANT: Bedress, Gregory
APPLICANT: Endress, Gregory
APPLICANT: Endress, Gregory
APPLICANT: Ener, Reinhard
APPLICANT: Carter, Reinhard
APPLICANTION: Signature Gene Sets
FILE REFERENCE: 689290-64
CURRENT FILING DATE: 2003-04-29
FRIOR APPLICATION NUMBER: U.S. 60/236,891
PRIOR FILING DATE: 2000-09-29
PRIOR FILING DATE: 2000-01-01
PRIOR FILING DATE: 2000-11-01
PRIOR FILING DATE: 2000-11-01
PRIOR FILING DATE: 2000-11-01
NUMBER OF SEQ ID NOS: 1067
SOFTWARE: PatentIn version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 1778;
                                                                                                Length 1778;
                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 10;
                                                                                           Score 19; DB 9;
Pred. No. 0.53;
Mismatches C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0.53;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 19; DB Pred. No. 0.5; Mismatches
                                                                                                                                                                                                                                                                                    RESULT 14
US-09-873-367C-439/c
; Sequence 439, Application US/09873367C
; Publication No. US20030165839A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 AATTATTGATTCTGTAGGT 19
                                                                                                                                                                                AATTATTGATTCTGTAGGT 19
                                                                                                                                         ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 th 100.0%; Similarity 100.0%; 19; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           373 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                      AATTATTGATTCTGTAGGT
                                                                                                th 100.0%;
Similarity 100.0%;
19; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; ORGANISM: Homo sapiens
US-09-873-367C-439
                                           sapiens
                                        : Ношо
     ; TYPE: DNA
; ORGANISM: Homo
US-09-920-455-218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQ ID NO 439
LENGTH: 1778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local S
Matches 19
                                                                                                 Query Match
Best Local S
Matches 19
                                                                                                                                                                                                                        373
LENGTH: 17
TYPE: DNA
ORGANISM:
                                                                                                                                                                                    Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                <del>업</del>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                           g
                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; OTHER INFORMATION: Genbank Accession No. US20020142981A1 L23808 US-09-880-107-2179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 2179, Application US/09880107

Sequence 2179, Application US/09880107

Patent No. US20020142981A1

GENERAL INFORMATION:

APPLICANT: Horne, Darci T.

APPLICANT: Vockley, Joseph G.

APPLICANT: Scherf, Uwe

APPLICANT: Gene Logic, Inc.

TITLE OF INVENTION: Gene Expression Profiles in Liver Cancer;
FILE REFERENCE: 44921-5028-WO

CURRENT APPLICATION NUMBER: US/09/880,107

CURRENT FILING DATE: 2000-06-14

PRIOR FILING DATE: 2000-06-14

PRIOR FILING DATE: 2000-10-02

NUMBER OF SEQ ID NOS: 3950

SOFTWARE: Patentin Ver. 2.1

SEQ ID NO 2179

LENGTH: 1778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 218, Application US/09920455
; Patent No. US20020168647A1
; GENERAL INFORMATION:
; APPLICANT: Wang, Tongtong
; APPLICANT: Fan, Liqun
; TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
; TITLE OF INVENTION: AND DIAGNOSIS OF HEAD AND NECK CANCER
; FILE REFERENCE: 210121.540
; CURRENT APPLICATION NUMBER: US/09/920,455
; CURRENT FILING DATE: 2001-08-01
; NUMBER OF SEQ ID NOS: 275
; SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                             ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1778;
                                                                                                                                                                                                                                                                     Length 1778;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   th Similarity 100.0%; Score 19; DB 9; Similarity 100.0%; Pred. No. 0.53; 19; Conservative 0; Mismatches ()
                                                                                                                                                                                                                                                                      ي
:
                                                                                                                                                                                                                                                                     Score 19; DB 9;
Pred. No. 0.53;
Mismatches
PRIOR FILING DATE: 2000-09-27
PRIOR APPLICATION NUMBER: US/60/235,840
PRIOR FILING DATE: 2000-09-27
PRIOR APPLICATION NUMBER: US/60/235,863
PRIOR FILING DATE: 2000-09-27
NUMBER OF SEQ ID NOS: 2276
SOFTWARE: Patentin version 3.0
SEQ ID NO 1799
LENGTH: 1778
                                                                                                                                                                                                                                                                                                                                                                                               355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 AATTATTGATTCTGTAGGT 19
                                                                                                                                                                                                                                                                                                                                                        1 AATTATTGATTCTGTAGGT 19
                                                                                                                                                                                                                                                                                                              ,
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             373 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                373 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                      100.08;
                                                                                                                                                                                                                                                                                          100.0%;
                                                                                                                                                                                                                                                                                         | Similarity 100
19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: DNA ORGANISM: Homo sapiens
                                                                                                                                                                                                         , ORGANISM: Homo sapiens
US-09-954-456-1799
                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 12
US-09-880-107-2179/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-920-455-218/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                        TYPE: DNA
                                                                                                                                                                                                                                                                        Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEO ID NO
                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    D
D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                   D
D
                                                                                                                                                                                                                                                                                                                                                           8
```

ö

Gaps

ő

us-10-619-906-5.rnpb

```
Query Match
Best Local Similarity
Matches 19; Conser
                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM: Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: DNA
ORGANISM: HOMO
                                                                                                                                                                                                                                                                                                                                                                                                                                 ; NAME/KEY: CDS
; LOCATION: (13)
US-10-301-822-122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local S
Matches 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             а
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                         ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  THERAPY
                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: SCHIEGEL, ROBERT,
APPLICANT: Chen, Yan
APPLICANT: Chen, Xumei
APPLICANT: Amatkar, Shubhangi
APPLICANT: Monahan, John
APPLICANT: Glatt, Karen
APPLICANT: Ganavarapu, Manjula
APPLICANT: Genesh, Sebastian
TITLE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS, AND METHODS FOR
TITLE OF INVENTION: OF CERVICAL CANCER
FILE REFERENCE: MRI-035
CURRENT FILING DATE: 2002-06-12
PRIOR APPLICATION NUMBER: US 60/298,155
PRIOR FILING DATE: 2001-06-13
PRIOR FILING DATE: 2001-06-13
PRIOR FILING DATE: 2001-10-14
NUMBER OF SEQ ID NOS: 238
SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                        ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .;
0
                                                                                                                                                                                                                                                       Length 1778;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 1778;
                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                      ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                    Score 19; DB 10;
Pred. No. 0.53;
Mismatches 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 19; DB 14;
Pred. No. 0.53;
; Mismatches 0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-10-301-822-122/c
; Sequence 122, Application US/10301822
; Publication No. US20030148410A1
; GENERAL INFORMATION:
; APPLICANT: Millennium Pharmaceuticals, Inc.
; APPLICANT: Berger, Allison
; APPLICANT: Guillemette, Tracy L.
                                                                           60/245,084
                                       60/244,867
      60/236,842
                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 134, Application US/10171311
Publication No. US20030087270A1
GENERAL INFORMATION:
APPLICANT: Schlegel, Robert
APPLICANT: Chen, Yan
                                                                                                                                                                                                                                                                                                                            19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 AATTATTGATTCTGTAGGT 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ;
0
PRIOR APPLICATION NUMBER: U.S. 6
PRIOR FILING DATE: 2000-09-29
PRIOR APPLICATION NUMBER: U.S. 6
PRIOR FILING DATE: 2000-11-01
PRIOR APPLICATION NUMBER: U.S. 6
PRIOR FILING DATE: 2000-11-01
NUMBER OF SEQ ID NOS: 1067
SOFTWARE: Patentin version 3.0
                                                                                                                                                                                                                                                                                         .;
0
                                                                                                                                                                                                                                                                                                                         AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                          373 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%;
                                                                                                                                                                                                                                                    100.0%;
                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
Matches 19; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
Matches 19; Conser
                                                                                                                                                                              ; TYPE: DNA
; ORGANISM: Homo
US-09-873-367C-1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-10-171-311-134
                                                                                                                                     SEQ ID NO 1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQ ID NO 134
LENGTH: 1778
                                                                                                                                                                                                                                                                                                                                                                                                                RESULT
US-10-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT
                                                                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            <del>P</del>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                            KITS, AND
1, ASSESSMENT, PREVENTION,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-10-3.7-632-1/c

i Sequence 1, Application US/10337632

i Publication No. US20030157110A1

i GENERAL INFORMATION:

i APPLICANT: An, Frank

APPLICANT: Chen, Hong

TITLE OF INVENTION: DISORDERS, INCLUDING OBESITY AND DIABETES

FILE REFERENCE: MP101-253P1RM

CURRENT APPLICATION NUMBER: US/10/337,632

CURRENT FILING DATE: 2003-01-07

PRIOR APPLICATION NUMBER: 60/346,354

PRIOR FILING DATE: 2002-01-07

NUMBER OF SEQ ID NOS: 6

SOFTWARE: FastSEQ for Windows Version 4.0

LENGTH: 1778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 1778;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 1778;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
APPLICANT: Schleger, ...
APPLICANT: Schleger, ...
APPLICANT: Monahan, John E.
APPLICANT: Thibodeau, Stephen N.
APPLICANT: Thibodeau, Stephen N.
APPLICANT: Burgart, Lawrence J.
TITLE OF INVENTION: METHODS FOR IDENTIFICATIONS, KITS,
TITLE OF INVENTION: THERAPY OF COLON CANCER
FILE REFERENCE: MPMO1-029P2RNM
CURRENT APPLICATION NUMBER: US/10/301,822
CURRENT FILING DATE: 2002-11-21
PRIOR FILING DATE: 2001-12-10
PRIOR FILING DATE: 2002-05-05
PRIOR FILING DATE: 2002-03-05
PRIOR FILING DATE: 2002-03-05
PRIOR FILING DATE: 2002-05-20
NUMBER OF SEQ ID NOS: 228
SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        core 19; DB 15
red. No. 0.53;
Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 19; DB 10
Pred. No. 0.53;
Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 19;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               373 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   373 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         similarity 100
19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; NAME/KEY: CDS
; LOCATION: (13)...(1425)
US-10-337-632-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                     .. (1425)
                                                                                                                                                                                                                                                                                                                                                                                                    Sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 19
US-10-131-985-40/c
```

```
...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ents
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Dai, Hongyue
APPLICANT: He, Yudong
APPLICANT: Linsley, Peter
APPLICANT: Linsley, Peter
APPLICANT: Mao, Mao
APPLICANT: Wan 't Veer, Laura
APPLICANT: Van de Vijver, Marc
APPLICANT: Van de Vijver, Marc
APPLICANT: Bernards, Rene
TITLE OF INVENTION: Diagnosis and Prognosis of Breast Cancer Patients
FILE REFERENCE: 9301-175-999
CURRENT APPLICATION NUMBER: US/10/172,118
CURRENT FILING DATE: 2002-06-14
PRIOR FILING DATE: 2002-05-14
NUMBER OF SEQ ID NOS: 2699
SEQ ID NO 769
LENGTH: 1778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 1778;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 1778;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; Score 19; DB 17; 100.0%; Pred. No. 0.53; ive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 19; DB 1
Pred. No. 0.53;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                  APPLICANT: Davies, Michael J
APPLICANT: Davies, Michael J
APPLICANT: Fish, Paul V
APPLICANT: Huggins, Jonathan P
APPLICANT: Huggins, Jonathan P
APPLICANT: McIntosh, Fraser S
APPLICANT: Occleston, Nicholas L
TITLE OF INVENTION: Composition
FILE REFERENCE: PCS 10391A
CURRENT APPLICATION NUMBER: US/10/131,985
CURRENT FILING DATE: 2002-04-25
PRIOR APPLICATION NUMBER: GB 9930768.8
PRIOR FILING DATE: 1999-12-29
NUMBER OF SEQ ID NOS: 60
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 40
LENGTH: 1778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PUBLICATION INFORMATION:
DATABASE ACCESSION NUMBER: NM 002426
DATABASE ENTRY DATE: 2001-06-18
US-10-172-118-769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-10-172-118-769/c; Sequence 769, Application US/10172118; Publication No. US20030224374A1; GENERAL INFORMATION:
Sequence 40, Application US/10131985 Publication No. US20030199440A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 AATTATTGATTCTGTAGGT 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      373 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity 100
19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                 ; ORGANISM: Homo sapiens
US-10-131-985-40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
Matches 19; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       D
D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
```

355

373 AATTATTGATTCTGTAGGT

D D

ઠે

RESULT 21

```
Sequence 14, Application US/10409643
Sequence 14, Application US/10409643
Publication No. US20030235577A1
GENERAL INFORMATION:
APPLICANT: Shapiro, Steven
APPLICANT: Hartzell, William
TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR PREVENTING AND TREATING MICROBIAL INF
FILE REFERENCE: B00801.70281.US
CURRENT APPLICATION NUMBER: US/10/409,643
CURRENT FILING DATE: 2003-04-08
PRIOR FILING DATE: 2002-04-08
PRIOR FILING DATE: 2002-04-08
NUMBER OF SEQ ID NOS: 55
SOFTWARE: Patentin version 3.1
SEQ ID NO 14
LENGTH: 1778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Tissue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; OTHER INFORMATION: Genbank Accession No. US20040033502A1 L23808 US-10-240-425-1283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 22
US-10-240-425-1283/c
; Sequence 1283, Application US/10240425
; Publication No. US20040033502A1
; GENERAL INFORMATION:
    APPLICANT: Williams, Amanda
    APPLICANT: Williams, Amanda
    APPLICANT: Williams, Amanda
    APPLICANT: Word, Reginald V.
    APPLICANT: Nord, Reginald V.
    APPLICANT: Alvarez, Chris
    APPLICANT: Vockley, Joseph G.
    APPLICANT: Scherf, Uwe
    APPLICANT: Scherf, Uwe
    APPLICANT: Scherf, Uwe
    APPLICANT: Wockley, Joseph G.
    TITLE OF INVENTION: GENERAL STORESSION Profiles in Esophageal Tise
    FILE REFERENCE: 44921-5026
    CURRENT APPLICATION NUMBER: DCT/US01/09847
    PRIOR FILING DATE: 2002-09-30
    PRIOR FILING DATE: 2001-03-28
    PRIOR FILING DATE: 2001-03-28
    PRIOR FILING DATE: 2000-03-31
    wummerr OF SEQ ID NOS: 1588
    wummerr OF SEQ ID NOS: 1588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 1778;
                                                                                                                                                                                                                                                                                                                                                                                     Length 1778;
                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 17;
0.53;
                                                                                                                                                                                                                                                                                                                                                                                       17;
                                                                                                                                                                                                                                                                                                                                                                                      DB 17
0.53;
                                                                                                                                                                                                                                                                                                                                                                                      Score 19; DB Pred. No. 0.5; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 19;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 23
US-10-342-887-769/c
; Sequence 769, Application US/10342887
; Publication No. US20040058340A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 AATTATTGATTCTGTAGGT 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AATTATTGATTCTGTAGGT 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                 .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%;
                                                                                                                                                                                                                                                                                                                                                                                        100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         373 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            373 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR FILING DATE: 2000-0
NUMBER OF SEQ ID NOS: 158
SOFTWARE: Patentin Ver. 2
SEQ ID NO 1283
LENGTH: 1778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: DNA ORGANISM: Homo sapiens FEATURE:
                                                                                                                                                                                                                                                                                                          ; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-409-643-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
19; Conser
                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
Matches 19; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local S
Matches 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
```

· rnpb

us-10-619-906-5

 $\infty$ 

```
RESULT 26
US-10-734-564-10/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQ ID NO 10
LENGTH: 1778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; OKGANISM: HO
US-10-734-564-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-10-619-906-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Loc
Matches
                                                                                                                           -10-619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Compositions of Bladder
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                          ents
                                                                                                                                                                                                                                                                          Breast Cancer Pati
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bladder Cancer, Comp
ng for Modulators of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1778;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 1778;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indel
APPLICAL.
APPLICANT: He,
APPLICANT: Linsley,
APPLICANT: Mao, Mao,
APPLICANT: Mao, Mao,
APPLICANT: Roberts, Christopher
APPLICANT: Van de Vijver, Marc J.
APPLICANT: Van de Vijver, Marc J.
APPLICANT: Van de Vijver, Marc J.
APPLICANT: Bernards, Rene
TITLE OF INVENTION: Diagnosis and Prognosis of Bre FILE REFERENCE: 9301-188-99
CURRENT APPLICATION NUMBER: US/10/342,887
CURRENT FILING DATE: 2003-01-15
PRIOR APPLICATION NUMBER: 60/298,918
PRIOR FILING DATE: 2002-06-14
PRIOR FILING DATE: 2002-06-14
NUMBER OF SEQ ID NOS: 2699
SEQ ID NO 769

""GTH: 1778

"Applicant Applicant App
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 19; DB 17;
Pred. No. 0.53;
Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 24
US-10-188-832-124/c

Sequence 124, Application US/10188832

Publication No. US20040076955A1

GENERAL INFORMATION:
APPLICANT: Mack, David H.
APPLICANT: Aziz, Natasha
APPLICANT: Eos Biotechnology, Inc.
TITLE OF INVENTION: Methods of Diagnosis of Bladc
TITLE OF INVENTION: Cancer
TITLE OF INVENTION: Cancer
TITLE OF INVENTION: Cancer
FILE REFERENCE: 018501-002330US
CURRENT APPLICATION NUMBER: US 60/302,814
PRIOR FILING DATE: 2001-07-03
PRIOR FILING DATE: 2001-07-03
PRIOR FILING DATE: 2001-03-03
PRIOR FILING DATE: 2001-11-08
PRIOR FILING DATE: 2001-11-13
PRIOR FILING DATE: 2001-11-13
PRIOR FILING DATE: 2002-04-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 19; DB 1
Pred. No. 0.53;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    373 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQ ID NOS: 207
SOFTWARE: Patentin Ver. 2
EQ ID NO 124
LENGTH: 1778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
19; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
19; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-10-188-832-124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local S
Matches 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: DNA ORGANISM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT
US-10-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
```

1 AATTATTGATTCTGTAGGT 19

ð

AATTATTGATTCTGTAGGT

373

```
no. NM-002426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COLON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .;
0
                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 12, Application US/10751736
; Sequence 12, Application US/10751736
; Publication No. US20040265230A1
; GENERAL INFORMATION:
; APPLICANT: Wyeth
; APPLICANT: Brown, Eugene
; APPLICANT: Liu, Wei
; TITLE OF INVENTION: CANCERS
; TITLE OF INVENTION: CANCERS
; FILE REFERENCE: AM100927 (031896-002000)
; CURRENT APPLICATION NUMBER: US/10/751,736
                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                  acc.
                                                                                                                                                                                                                                                                                                                                                                                                      ·;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                      1778;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 1778
                                                                                                                                                                                                                                                                                                                 Genebank
                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indela
                                                                                                                                                                                                                                                                                                                                                                    Length
                                                                                                                                                                                                                                                                       NAME/KEY: gene
LOCATION: (1)..(1778)
OTHER INFORMATION: SEQ ID NO.1; cDNA human MMP-12,
                                                                                                                                                                                                                                                                                                                                                                                                        .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                 17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 18;
0.53;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TIMP1
                                                                                                                                                                                                                                                                                                                                                                                    red. No. 0.53;
Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                sequence 10, Application US/10734564
; Publication No. US20040157278A1
; GENERAL INFORMATION:
; APPLICANT: Christopher C Burgess et al
; TITLE OF INVENTION: Detection Methods Using TII;
; FILE REFERENCE: 1657/2012
; CURRENT APPLICATION NUMBER: US/10/734,564
; CURRENT FILING DATE: 2003-12-12
; NUMBER OF SEQ ID NOS: 138
; SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                     DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 19; DB
Pred. No. 0.5
0; Mismatches
Sequence 1, Application US/10619906
; Publication No. US20040087533A1
; GENERAL INFORMATION:
; APPLICANT: Index Pharmaceuticals
; TITLE OF INVENTION: New Compound
; FILE REFERENCE: 50299
; CURRENT APPLICATION NUMBER: US/10/619,906
; CURRENT FILING DATE: 2003-07-16
; NUMBER OF SEQ ID NOS: 23
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 1
; LENGTH: 1778
                                                                                                                                                                                                                                                                                                                                                                   Score 19;
Pred. No. (
                                                                                                                                                                                                                                                                                                                                                                                                                                          1 AATTATTGATTCTGTAGGT 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 AATTATTGATTCTGTAGGT 19
                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ó
                                                                                                                                                                                                                                                                                                                                                                    100.08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    373 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          373 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                       TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
hes 19; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
Matches 19; Conser
```

```
ö
                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-10-843-641A-439/c

US-10-843-641A-439/c

Sequence 439, Application US/10843641A

Publication No. US20050064454A1

GENERAL INFORMATION:

TITLE OF INVENTION: Cancer Gene Determination and Therapeutic Scr.

TITLE OF INVENTION: Signature Gene Sets

FILE REFERENCE: 689290-189

CURRENT APPLICATION NUMBER: US/10/843,641A

CURRENT FILING DATE: 2004-05-12

PRIOR FILING DATE: 2001-06-05

PRIOR FILING DATE: 2001-06-05

PRIOR FILING DATE: 2001-09-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SCJ
                                                                                                                                                                                                                  ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
           PRIOR APPLICATION NUMBER: US Provisional Application 60/438,000 PRIOR FILING DATE: 2003-01-06 NUMBER OF SEQ ID NOS: 54873 SOFTWARE: PatentIn version 3.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 1778;
                                                                                                                                                                                 Length 1778;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 19; DB 19;
Pred. No. 0.53;
; Mismatches 0;
                                                                                                                                                                                                                 ;
0
                                                                                                                                                                                 DB 18;
                                                                                                                                                                                 Score 19; DB 18
Pred. No. 0.53;
                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Davies, Michael J
APPLICANT: Davies, Michael J
APPLICANT: Fish, Paul V
APPLICANT: Huggins, Jonathan P
APPLICANT: McIntosh, Fraser S
APPLICANT: McIntosh, Fraser S
APPLICANT: Occleston, Nicholas L
TITLE OF INVENTION: Composition
FILE REFERENCE: PCS 10391A
CURRENT APPLICATION NUMBER: US/10/901,417
CURRENT FILING DATE: 2004-07-28
PRIOR APPLICATION NUMBER: US/09/726,295
PRIOR FILING DATE: 2000-11-30
PRIOR FILING DATE: 2000-11-30
PRIOR FILING DATE: 1999-12-29
NUMBER OF SEQ ID NOS: 60
SOFTWARE: Patentin Ver. 2.1
                                                                                                                                                                                                                                                                                                                                                                        Sequence 40, Application US/10901417 Publication No. US20050026836A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               355
                                                                                                                                                                                                                                                                                       355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%; Sc
100.0%; Pr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               19
                                                                                                                                                                                                                                                      1 AATTATTGATTCTGTAGGT 19
                                                                                                                                                                                                                 0;
2003-01-06
                                                                                                                                                                               100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                373 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                        373 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                 | Similarity 100
19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                             TYPE: DNA ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity 19; Conser
CURRENT FILING DATE:
                                                                                                                                                                                                                                                                                                                                                           -417-40/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        40
1778
                                                                              SEQ ID NO 12
LENGTH: 1778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; ORGANISM: HOI
US-10-901-417-40
                                                                                                                                               US-10-751-736-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local (
                                                                                                                                                                                Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best_Loc
Matches
                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                          RESULT 28
US-10-901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                       d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                      ઠે
```

```
APPLICANT: Avalon Pharmaceuticals, Inc.
TITLE OF INVENTION: Cancer Gene Determination and Therapeutic Screening Using TITLE OF INVENTION: Signature Gene Sets
FILE REFERENCE: 689290-189
CURRENT APPLICATION NUMBER: US/10/843,641A
CURRENT FILING DATE: 2004-05-12
PRIOR APPLICATION NUMBER: US/09/873,367
PRIOR FILING DATE: 2001-06-05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 1778;
                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     See File Wrapper
                                                                                                                                                                                                                                                                                                                          File Wrapper
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 19;
0.53;
                                                                                                                                                                                                                                                                                                                            See
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 19;
Pred. No. (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION NUMBER: US/09/954,456
PRIOR FILING DATE: 2001-09-25
PRIOR APPLICATION NUMBER: US/09/962,436
PRIOR FILING DATE: 2001-09-25
PRIOR FILING DATE: 2001-09-26
PRIOR FILING DATE: 2001-09-28
PRIOR FILING DATE: 2001-09-28
PRIOR FILING DATE: 2001-09-28
PRIOR FILING DATE: 2001-10-02
PRIOR FILING DATE: 2001-10-03
PRIOR FILING DATE: 2001-10-03
NR FILING DATE: 2001-09-25

OR APPLICATION NUMBER: US/09/962,436

OR APPLICATION NUMBER: US/09/962,436

OR APPLICATION NUMBER: US/09/964,824

OR FILING DATE: 2001-09-25

OR APPLICATION NUMBER: US/09/967,768

OR FILING DATE: 2001-09-27

OR APPLICATION NUMBER: US/09/968,007

OR FILING DATE: 2001-09-28

OR FILING DATE: 2001-09-28

OR FILING DATE: 2001-09-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Remaining Prior Application data removed NUMBER OF SEQ ID NOS: 8447 SOFTWARE: Patentin version 3.0 SEQ ID NO 1001 LENGTH: 1778
                                                                                                                                                                                                                                                                                                                             removed
                                                                                                                                                                                                                               PRIOR APPLICATION NUMBER: US/09/969,347
PRIOR FILING DATE: 2001-10-02
PRIOR APPLICATION NUMBER: US/09/969,708
PRIOR FILING DATE: 2001-10-03
Remaining Prior Application data removed NUMBER OF SEQ ID NOS: 8447
SOFTWARE: Patentin version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US/09/954,531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 1001, Application US/10843641A Publication No. US20050064454A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 AATTATTGATTCTGTAGGT 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%;
100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION NUMBER: US/
PRIOR FILING DATE: 2001-09-18
PRIOR APPLICATION NUMBER: US/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 100.
Matches 19; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                 ; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-843-641A-439
                                                                                                                                                                                                                                                                                                                                                                                          SEQ ID NO 439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR
PRIOR
    PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
```

ö

```
; ORGANISM: Homo
US-10-843-641A-4154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: DNA
ORGANISM: Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ID NO 4826
ENGTH: 1778
                                                                                                                                                                                                                                                                                                                                                                                                                                                    EQ ID NO 4154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: DNA ORGANISM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                            PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                           WENDURY

FERDURY

Sequence 3080, Application US/10843641A

Publication No. US20050064454A1

GENERAL INFORMATION:

APPLICANT: AVAION Pharmaccuticals, Inc.

APPLICANT: AVAION Pharmaccuticals, Inc.

TITLE OF INVENTION: Signature Gene Sets

FILE REFRENCE: 689290-189

FILE REFRENCE: 689290-189

FILE REFRENCE: 2004-09-18

FRIOR PILING DATE: 2001-06-05

PRIOR APPLICATION NUMBER: US/09/954,531

PRIOR PILING DATE: 2001-09-18

PRIOR PLING DATE: 2001-09-18

PRIOR PLING DATE: 2001-09-28

PRIOR FILING DATE: 2001-09-28

PRIOR FILING DATE: 2001-09-25

PRIOR FILING DATE: 2001-09-25

PRIOR PLING DATE: 2001-09-25

PRIOR PLING DATE: 2001-09-25

PRIOR PLING DATE: 2001-09-26

PRIOR PLING DATE: 2001-09-27

PRIOR PLING DATE: 2001-09-28

PRIOR PLING DATE: 2001-10-3

PRIOR PLING DATE: 2001-10-3

PRIOR FILING DATE: 2001-10-03

PRIOR FILING DATE: 2001-10-03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                eening Using
                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 32
US-10-843-641A-4154/c
is Sequence 4154, Application US/10843641A
is Publication No. US20050064454A1
is GENERAL INFORMATION:
is APPLICANT: Avalon Pharmaceuticals, Inc.
is TITLE OF INVENTION: Cancer Gene Determination and Therapeutic Screeni
is TITLE OF INVENTION: Signature Gene Sets
is FILE REFERENCE: 689290-189
is CURRENT APPLICATION NUMBER: US/10/843,641A
is CURRENT FILING DATE: 2004-05-12
is PRIOR APPLICATION NUMBER: US/09/873,367
is PRIOR FILING DATE: 2001-06-05
is PRIOR APPLICATION NUMBER: US/09/954,531
                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
          1778;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 1778;
                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
            Length
                                                     .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 19;
         19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0.53;
         Score 19; DB 19
Pred. No. 0.53;
Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 19;
Pred. No.
                                                                                                                                                  355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ;
0
                                                         ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 373 AATTATTGATTCTGTAGGT
                                                                                                                            373 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%;
llarity 100.0%;
Conservative (
         100.0%;
larity 100.0%;
Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM: Homo sapiens
US-10-843-641A-3080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
Matches 19; Conser
Query Match
Best Local Similarity
Matches 19; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NO 3080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH:
                                                                                                                                                                                                                   RESULT 31
US-10-843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEO ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                      ò
```

```
PAPPLICATION NUMBER: US/09/962,832
PRIOR PLING DATE: 2001-09-25
PRIOR PLING DATE: 2001-09-36
PRIOR PILING DATE: 2001-09-25
PRIOR PILING DATE: 2001-09-26
PRIOR PILING DATE: 2001-09-26
PRIOR PILING DATE: 2001-09-26
PRIOR PILING DATE: 2001-09-26
PRIOR PILING DATE: 2001-09-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PALM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 1778;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Wrapper
                                                                                                                                                                                                                                                                                                                                                                                                                                            File Wrapper
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       File
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 19;
0.53;
                                                                                                                                                                                                                                                                                                                                                                                                                                            See
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            See
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 19;
Pred. No.
                                                                          R FILING DATE: 2001-09-25

OR APPLICATION NUMBER: US/09/962,832

OR FILING DATE: 2001-09-25

OR APPLICATION NUMBER: US/09/964,824

OR FILING DATE: 2001-09-27

OR APPLICATION NUMBER: US/09/967,768

OR APPLICATION NUMBER: US/09/968,007

OR APPLICATION NUMBER: US/09/969,347
                                                                                                                                                                                                                                                                                                                                                       PRIOR FILING DATE: 2001-10-02
PRIOR APPLICATION NUMBER: US/09/969,708
PRIOR FILING DATE: 2001-10-03
Remaining Prior Application data removed
NUMBER OF SEQ ID NOS: 8447
SOFTWARE: PatentIn version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         removed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION NUMBER: US/09/969,347
PRIOR FILING DATE: 2001-10-02
PRIOR APPLICATION NUMBER: US/09/969,708
PRIOR FILING DATE: 2001-10-03
Remaining Prior Application data remove
NUMBER OF SEQ ID NOS: 8447
SOFTWARE: PatentIn version 3.0
09/954,456
                                                     US/09/962,436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SSULT 33
3-10-843-641A-4826/c
Sequence 4826, Application US/10843641A
Publication No. US20050064454A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pred
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 AATTATTGATTCTGTAGGT 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ·;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%;
larity 100.0%;
Conservative
                          -09-2
APPLICATION NUMBER:
FILING DATE: 2001-0
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     l Similarity
19; Conserv
```

ö

S

200

: 52

: 55

07

3 2

Mon May

```
IN DENDRITIC CELL DIFFERENTIATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 10;
0.53;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                APPLICANT: Peterson, David P.
APPLICANT: Pearson, Cecelia I.
APPLICANT: Cocks, Benjamin G.
TITLE OF INVENTION: GENES REGULATED IN DENDR
FILE REFERENCE: PA-0029 US
CURRENT APPLICATION NUMBER: US/09/971,392
CURRENT FILING DATE: 2001-10-03
PRIOR APPLICATION NUMBER: 60/237,652
PRIOR FILING DATE: 2000-10-03
NUMBER OF SEQ ID NOS: 260
SOFTWARE: PERL Program
SEQ ID NO 36
LENGTH: 1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 19;
Pred. No. (
                                                                                                                                                                                                                                                                                                                                                       200569.1
                                                                                                                                                                                                                                                                                                                                                                                                    or other
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1447
       RESULT 36
US-09-971-392-36/c
; Sequence 36, Application US/09971392
; Publication No. US20030134283A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 AATTATTGATTCTGTAGGT 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ..
0
                                                                                                                                                                                                                                                                                                                                       NAME/KEY: misc feature
OTHER INFORMATION: Template ID:
                                                                                                                                                                                                                                                                                                                                                                                                      ຄັ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           th 100.0%;
Similarity 100.0%;
19; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1465 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    396 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                      ပဲ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY: unsure
LOCATION: 1886
OTHER INFORMATION: a, t,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; ORGANISM: Homo sapiens US-10-335-053-279
                                                                                                                                                                                                                                                                                                         ORGANISM: Homo sapiens FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local Similarity
Matches 19; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQ ID NO 279
LENGTH: 2870
                                                                                                                                                                                                                                                                                                                                                                                                                US-09-971-392-36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local S
Matches 19
                                                                                                                                                                                                                                                                                            DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                            TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                            Compositions
                                                                                                                                                                                                                                                                                                          na Modulators
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gabs
                                                                                                                                                               RESULT 34
US-10-723-860-6186/c
is Sequence 6186, Application US/10723860
is Publication No. US20040253606A1
is GENERAL INFORMATION:
is APPLICANT: Aziz, Natasha
is APPLICANT: Ginsburg, Wendy M.
is APPLICANT: Zlotnik, Albert
is TITLE OF INVENTION: Methods of Diagnosis of Soft Tissue Sarcoma Mostree of Invention: Methods for Screening for Soft Tissue Sarcoma Mostree of Invention NUMBER: US/10/723,860
is CURRENT FILING DATE: 2003-11-26
is PRIOR APPLICATION NUMBER: 60/429,739
is PRIOR FILING DATE: 2002-11-26
is NUMBER OF SEQ ID NOS: 8393
is SOFTWARE: Patentin version 3.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 1873;
                          Length 1778;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 1874;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-925-301-375/c

US-09-925-301-375/c

Sequence 375, Application US/09925301

Patent No. US20020052308A1

GENERAL INFORMATION:

APPLICANT: Rosen et al.

TITLE OF INVENTION: Nucleic Acids, Proteins and Antibodies

FILE REFERENCE: PA106

CURRENT FILING DATE: 2001-08-10

PRIOR APPLICATION NUMBER: PCT/US00/05882

PRIOR FILING DATE: 2000-03-08

PRIOR FILING DATE: 1999-03-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .;
0
                                                          ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 18;
                          DB 19;
0.53;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 19; DB 18
Pred. No. 0.53;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                           Mismatches
                            Score 19;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 19;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       405
                                                                                                                       355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 AATTATTGATTCTGTAGGT 19
                                                                                         1 AATTATTGATTCTGTAGGT 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ;
0
                                                          .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%;
ilarity 100.0%;
Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      423 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                421 AATTATTGATTCTGTAGGT
                            100.0%;
                                                                                                          373 AATTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQ ID NOS: 1694
SOFTWARE: Patentin Ver. 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; ORGANISM: Homo sapiens US-10-723-860-6186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Similarity
19; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Similarity
19; Conser
                                           Local Similarity
nes 19; Conser
US-10-843-641A-4826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-925-301-375
                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQ ID NO 6186
LENGTH: 1873
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10 ID NO 375
LENGTH: 1874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local S
Matches 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: DNA ORGANISM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM:
                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 35
US-09-925-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                        d
D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ઠે
                                                                                          δ
```

.. 0

Gaps

. 0

Length 1988;

```
ö
RESULT 37
US-10-335-053-279/c
is Sequence 279, Application US/10335053
; Publication No. US20040241653A1
; General INFORMATION:
; APPLICANT: Quark Biotech, Inc.
; TILLE REFERENCE: 68733-A; 070/US1
; CURRENT APPLICATION NUMBER: US/10/335,053
; CURRENT PILING DATE: 2003-03-27
; PRIOR FILING DATE: 2001-12-31
; NUMBER OF SEQ ID NOS: 319
; SOFTWARE: PatentIn version 3.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                            ·,
                                                                                                                                                                                                                                                                                                                                                                                                                      Length 2870;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                        Score 19; DB 18;
Pred. No. 0.54;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 38
US-10-349-143-2352/c
; Sequence 2352, Application US/10349143
; Publication No. US20040005584A1
; GENERAL INFORMATION:
; APPLICANT: Cohen, Daniel
```

.rnpb

```
0;
                                                                                                                                                                                                                                                                                                                                                                                                                  979
                                                                                                                                                                                                                                                                                                             84.2%;
                                                                                                                                                                                                                                                             ; OTHER INFORMATION: Clone ID: US-10-437-963-37801
                                                                                                                                                                                                                                                                                                                                                                                  TATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                              964 TATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        27 TATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Candida albicans
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        . Similarity 100
16; Conservative
                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                            TYPE: DNA
ORGANISM: Oryza sativa
                                                                                                                                                                                                                                                                                                                              Similarity
16; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-10-032-585-6874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-10-220-510-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: DNA ORGANISM:
                                                                                                                                                                                                                                                                                                               Query Match
Best Local S
Matches 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local S
Matches 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4
                                                                                                                                                                                                                                               FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ਨੇ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            <del>a</del>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                        high density
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Discovery
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-10-032-585-3874

US-10-032-585-3874, Application US/10032585

Sequence 3874, Application US/10032585

Publication No. US20030180953A1

GENERAL INFORMATION:

APPLICANT: Terry, Roemer D.

APPLICANT: Charles, Boone

APPLICANT: Howard, Bussey

IITLE OF INVENTION: Gene Disruption Methodologies for Drug Target Disr

FILE REFERENCE: 10182-005-999

CURRENT APPLICATION NUMBER: US/10/032,585

CURRENT FILING DATE: 2001-12-20

NUMBER OF SEQ ID NOS: 8000

SOFTWARE: PatentIn version 3.1

SEQ ID NO 3874

LENGTH: 65
                                                                                                                                          09/298,850
                                                                                                                                                                            60/109,732
                                                                                                                                                                                                             60/082,614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                          constructing
                                                                                                                                                                                                                                                                                                                                                                                                                                 47;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 65;
APPLICANT: Blumenfeld, Marta
APPLICANT: Chumakov, 11ya
TITLE OF INVENTION: Biallelic markers for use in constructing FILE REFERENCE: GENSET.020CP1
CURRENT APPLICATION NUMBER: US/10/349,143
CURRENT FILING DATE: 2003-01-21
PRIOR APPLICATION NUMBER: US/09/422,978
PRIOR FILING DATE: 1999-10-20
PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: US 60/9 PRIOR FILING DATE: EARLIER FILING DATE: 1999-04-21
PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: US 60/9 PRIOR FILING DATE: EARLIER FILING DATE: 1998-11-23
PRIOR FILING DATE: EARLIER FILING DATE: 1998-04-21
NUMBER OF SEQ ID NOS: 11796
SEQ ID NO 2352
LENGTH: 47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                    Length
                                                                                                                                                                                                                                                                                                                                                                               : polymorphic base
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              16;
                                                                                                                                                                                                                                                                                                                                                                                                                               Score 17; DB 1'
Pred. No. 5.5;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 16;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-10-437-963-37801
; Sequence 37801, Application US/10437963; Publication No. US20040123343A1; GENERAL INFORMATION:
; APPLICANT: La Rosa, Thomas J.; APPLICANT: Kovalic, David K.; APPLICANT: Zhou, Yihua; APPLICANT: Cao, Yongwei
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ;
0
                                                                                                                                                                                                                                                                                                                                             ; NAME/KEY: allele
; LOCATION: 24
; OTHER INFORMATION: 99-10570-107
US-10-349-143-2352
                                                                                                                                                                                                                                                                                                                                                                                                                                89.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          84.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       39 TATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; TYPE: DNA
; ORGANISM: Candida albicans
US-10-032-585-3874
                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Similarity 100
17; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                              ORGANISM: Homo Sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
16; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local S
Matches 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local S
Matches 16
                                                                                                                                                                                                                                                                                                 DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 39
US-10-032
                                                                                                                                                                                                                                                                                                 TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ದ್ದ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
```

```
Molecules Associated With
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-10-032-585-6874/c

| US-10-032-585-6874, Application US/10032585 |
| Publication No. US20030180953A1 |
| GENERAL INFORMATION: |
| APPLICANT: Terry, Roemer D. |
| APPLICANT: Howard, Bussey |
| APPLICANT: Howard, Bu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ..
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 11, Application US/10220510

Sequence 11, Application US/0020510

GENERAL INFORMATION:
APPLICANT: Hovnanian, Alain
APPLICANT: Cookson, William
APPLICANT: Moffat, Miriam
APPLICANT: Moffat, Miriam
APPLICANT: Walley, Andrew
TITLE OF INVENTION: SUSCEPTIBILITY GENE FOR NETHERTON'S DISEASE
FILE REFERENCE: 100317.70008.US
CURRENT APPLICATION NUMBER: US/10/220,510
CURRENT FILING DATE: 2003-03-04
PRIOR FILING DATE: 2000-03-02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ·.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 1554;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                            Other
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length
                                                                                                                                                                          Molecules and
Thereof for Pla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     · 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 16; DB 1
Pred. No. 26;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 16; DB
Pred. No. 25;
0; Mismatches
APPLICANT: Wu, Wei
APPLICANT: Boukharov, Andrey A.
APPLICANT: Barbazuk, Brad
APPLICANT: Li, Ping
TITLE OF INVENTION: Rice Nucleic Acid Molecut
TITLE OF INVENTION: Plants and Uses Thereof
FILE REFERENCE: 38-21(53221)B
CURRENT APPLICATION NUMBER: US/10/437,963
CURRENT FILING DATE: 2003-05-14
NUMBER OF SEQ ID NOS: 204966
SEQ ID NO 37801
LENGTH: 1116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PAT_MRT4530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         84.2%; Sc.
100.0%; Pr
```

```
ö
                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-10-719-900-701443
US-10-719-900-701443

; Sequence 701443, Application US/10719900
; Publication No. US20050026164A1
; GENERAL INFORMATION:
; APPLICANT: Xue Mei Zhou
; TITLE OF INVENTION: Methods of Genetic Analysis of Mouse
; FILE REFERENCE: 3528.1
; CURRENT APPLICATION NUMBER: US/10/719,900
; CURRENT FILING DATE: 2003-11-20
; PRIOR APPLICATION NUMBER: 60/427,808
; PRIOR FILING DATE: 2002 11 20
; NUMBER OF SEQ ID NOS: 982914
; SOFTWARE: Microarray Probe Sequence Listing Generator V 1.1
; LENGTH: 25
                                                                                                                                                                                                                       Length 38653;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Xue Mei Zhou
; TITLE OF INVENTION: Methods of Genetic Analysis of Mouse; FILE REFERENCE: 3528.1
; CURRENT APPLICATION NUMBER: US/10/719,900
; CURRENT FILING DATE: 2003-11-20
; PRIOR FILING DATE: 2002 11 20
; PRIOR FILING DATE: 2002 11 20
; NUMBER OF SEQ ID NOS: 982914
; SOFTWARE: Microarray Probe Sequence Listing Generator V 1
; SEQ ID NO 37891
; LENGTH: 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           >
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 19;
71;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 19;
                                                                                                                                                                                                                       16;
                                                                                                                                                                                                                      DB 32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 15; DB
Pred. No. 71;
0; Mismatches
                                                                                                                                                                                                                      Score 16; DB Pred. No. 32; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 15;
                                                                                                                                                                                                                                                                                                                                                                   RESULT 43
US-10-719-900-37891/c
; Sequence 37891, Application US/10719900
; Publication No. US20050026164A1
; GENERAL INFORMATION:
                                                                                                                                                                         g or t/u
0005229.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            78.9%; Sc.
100.0%; Pi
0;
                                                                                                                                                                                                                                                                                                                     31435
                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                     19
                                                                                                                                                                                                                       100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       17
PRIOR APPLICATION NUMBER: GB PRIOR FILING DATE: 2000-03-03 NUMBER OF SEQ ID NOS: 14 SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                           ϋ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     7
                                                                                                                                                                                                                                                                                                      31420 TATTGATTCTGTAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    21 TTATTGATTCTGTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                            ď
                                                                                                                                                                                                                                       Local Similarity 100
nes 16; Conservative
                                                                                                                                        NAME/KEY: misc feature;
LOCATION: (1846);
OTHER INFORMATION: n = a
US-10-220-510-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; ORGANISM: Mus musculus US-10-719-900-37891
                                                                                                             ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     l Similarity
15; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-10-719-900-701443
                                                             SEQ ID NO 11
LENGTH: 38653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: DNA ORGANISM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM:
                                                                                            DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local
                                                                                                                                                                                                                           Match
                                                                                                                                                                                                                                       Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                           Query
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       D
D
                                                                                                                                                                                                                                                                                                                      <del>Q</del>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ઠ
                                                                                                                                                                                                                                                                                      8
```

78.98;

Query Match

```
FOR
                                                                                                                                                                                                         APPLICANT: Penn, Sharron G.
APPLICANT: Penn, Sharron G.
APPLICANT: Rank, David R.
APPLICANT: Rank, David R.
APPLICANT: Rank, David R.
TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL TITLE OF INVENTION: EXPRESSION ANALYSIS TWO
FILE REFERENCE: ACOMICA-X-2
CURRENT APPLICATION NUMBER: US/10/029,386
CURRENT FILING DATE: 2001-12-20
NUMBER OF SEQ ID NOS: 34288
SOFTWARE: Annomax Sequence Listing Engine vers. 1.1
SEQ ID NO 23884
LENGTH: 274
TYPE: DNA
ORGANISM: Homo sapien8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                274;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          INFORMATION: MAP TO AC004237.1
INFORMATION: EXPRESSED IN FETAL LIVER, SIGNAL = 3.3
INFORMATION: EXPRESSED IN BRAIN, SIGNAL = 1.4
INFORMATION: EXPRESSED IN PLACENTA, SIGNAL = 2.7
INFORMATION: SWISSPROT HIT: Q9Y496, EVALUE 6.00e-49
INFORMATION: NT HIT: gil4781205, EVALUE 0.00e+00
INFORMATION: EST_HUMAN HIT: BI561517.1, EVALUE 0.00e
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                Indele
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
               ·.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 15; DB
Pred. No. 83;
0; Mismatches
Pred. No. 71;
Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                completed: April 26, 2005, 17:05:13 te : 503 secs
                                                                                                                                RESULT 45
US-10-029-386-23884
; Sequence 23884, Application US/10029386
; Publication No. US20030194704A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 78.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                244 ATTATTGATTCTGTA 258
Similarity 100.0%;
15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2 ATTATTGATTCTGTA 16
                                                 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity 100
15; Conservative
                                                 2 ATTATTGATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local S
Matches 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURE:
   Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OTHER
OTHER
OTHER
OTHER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OTHER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Search co
  Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OTHER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ਠੇ
                                                  ò
```

ដ

THIS PAGE BLANK (USPTO)